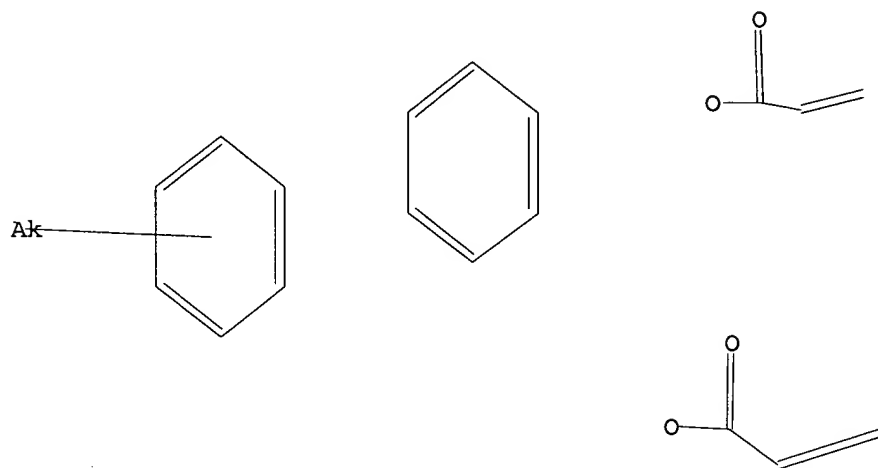


=>
Uploading C:\Program Files\Stnexp\Queries\516g.str

L30 STRUCTURE UPLOADED

=> d
L30 HAS NO ANSWERS
L30 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l30
REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 14:40:49 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2446 TO ITERATE

81.8% PROCESSED 2000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 45954 TO 51886
PROJECTED ANSWERS: 15645 TO 19185

L31 50 SEA SSS SAM L30

L32 44 L31

=> s l328 and py<1999
L328 NOT FOUND
The L-number entered could not be found. To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l32 and py<1999
19111731 PY<1999
L33 3 L32 AND PY<1999

=> d 1-3 ibib abs hitstr

ACCESSION NUMBER: 1947:9758 CAPLUS

DOCUMENT NUMBER: 41:9758

ORIGINAL REFERENCE NO.: 41:1992f-i,1993a-e

TITLE: Chemical reactions of mustard gas and related compounds. II. The reaction of mustard gas with carboxyl groups and with the amino groups of amino acids and peptides

AUTHOR(S): Moore, Stanford; Stein, Wm. H.; Fruton, Joseph S.

CORPORATE SOURCE: Rockefeller Inst. Med. Research, New York, NY

SOURCE: Journal of Organic Chemistry (1946), 11, 675-80

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

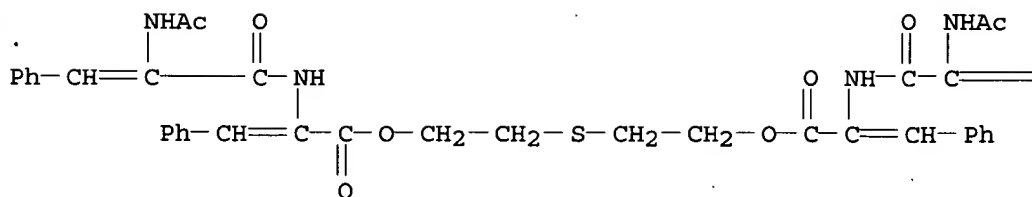
LANGUAGE: Unavailable

AB The physiol. effect of I is the consequence of chemical reactions of I or its decomposition products with body constituents. The reaction of I with CO₂H and NH₂ groups in NH₂ acids and peptides is therefore studied. When I is allowed to react with Na salts of organic acids, esters of II are formed. When a mixture of 4 millimols. (mM.) I and 16 mM. AcONa in 25 cc. H₂O is shaken 24 hrs. at 20-5°, 40% S(CH₂CH₂OAc)₂ (XII) (cf. Helferich and Reid, C.A. 14, 2486) (p-tolyl sulfilimine, crystals from C₆H₆, m. 116-17.5°), is formed; with 60 mM. NaOAc the yield of XII is 80%. I and 16 mM. C₁₇H₃₅CO₂Na under the same conditions give 50% S(CH₂CH₂O₂CC₁₇H₃₅)₂. I and 8 mM. tri-Na citrate or di-Na succinate give 60% of the resp. acidic esters which cannot be extracted from neutral or alkaline solns. with ether. I and 16 mM. Na diethylbarbiturate give 60% diveronal ester of II, crystals from EtOH, m. 148-9°. I and 16 mM. Na hippurate in 50 cc. 50% Me₂CO give 40% dihippurylthiodiglycol, crystals from EtOH, m. 119°. I and 16 mM. Na salicylate give 45% disalicylthiodiglycol, m. 74-5°. To study the influence of structural differences between the various compds. having a CO₂H group, the reaction of I with hippuric acid (XIII), acetyldehydrophenylalanine (XIV), and acetyldehydrophenylalanyldehydrophenylalanine (XV) is investigated. When 4 mM. I is shaken 48 hrs. with the Na salts of XIII, XIV, and XV in the presence of 12 mM. NaHCO₃ in 25 cc. H₂O at 25°, 37% ester of XIII, 35% ester of XIV, and 28% ester of XV are formed. In NaHCO₃-buffered solns., I reacts with the NH₂ group in glycine (XVI), alanine (XVII), lysine (XVIII), glycylglycine (XIX), and benzoyllysineamide (XX) and the extent of the reaction is measured by the decrease in NH₂-N according to the Van Slyke method. With 4 mM. I, 16 mM. XVI, and 8 mM. NaHCO₃ the decrease in NH₂-N is 1.3 mol. equivs.; with 8 mM. XVII and 12 mM. NaHCO₃, 1.0 mol. equivalent; with 8 mM. XVIII in a neutral solution, 1.8 mol. equivs.; with 16 mM. XIX and 8 mM. NaHCO₃, 2.5 mol. equivs.; and with 0.19 mM. I, 0.22 mM. XX, and 0.8 mM. NaHCO₃, 0.03 mol. equivalent. With XVI and XIX in the absence of NaHCO₃ the NH₂ group does not react with I. In these reactions either secondary amines or thiazanes may be formed. The ε-NH₂ in XX reacts to a lesser extent than does the α-NH₂ group. I reacts with pyridine to give 83% bis(2-pyridiniummethyl) sulfide dichloride, very hygroscopic crystals from absolute EtOH-ether (dipicrylsulfonate, crystals from 90% XI, m. 216-18°). When 7.3 g. nicotinamide (XXI), 5.05 g. NaHCO₃, and 1.9 g. I in 150 cc. H₂O are shaken 20 hrs. at room temperature and the solution is evaporated to dryness in vacuo, a residue is obtained which is extracted with hot absolute EtOH. The undissolved residue is taken up in 10 cc. H₂O, acidified with HCl, and evaporated to dryness. The last traces of H₂O are removed by repeated distillation with EtOH and the residue recrystd. from absolute Me₂CO, giving 0.8 g. dichloride of the XXI derivative, pink crystals, m. 151-3°. I and Na nicotinate give 95% "onium" compound. On heating with H₂O 1 hr. at 100° only a slight increase in acidity occurs, indicating that not more than 1% of the "onium" compound can be sulfonium salts.

IT 856178-97-7, Cinnamic acid, α-(α-acetamidocinnamamido)-, ester (di-) with 2,2'-thiodiethanol (preparation of)

RN 856178-97-7 CAPLUS

CN Cinnamic acid, α-(α-acetamidocinnamamido)-, ester (di-) with 2,2'-thiodiethanol (5CI) (CA INDEX NAME)



= CH-Ph

L33 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1932:25962 CAPLUS

DOCUMENT NUMBER: 26:25962

ORIGINAL REFERENCE NO.: 26:2735e-i

TITLE: Chromone group. V. Chromones derived from
2-phenylacetyl-1-naphthol and 2-β-phenylpropionyl-
1-naphthol

AUTHOR(S): Cheema, Ujagar S.; Venkataraman, Krishnasami

SOURCE: Journal of the Chemical Society, Abstracts (1932) 918-25

CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

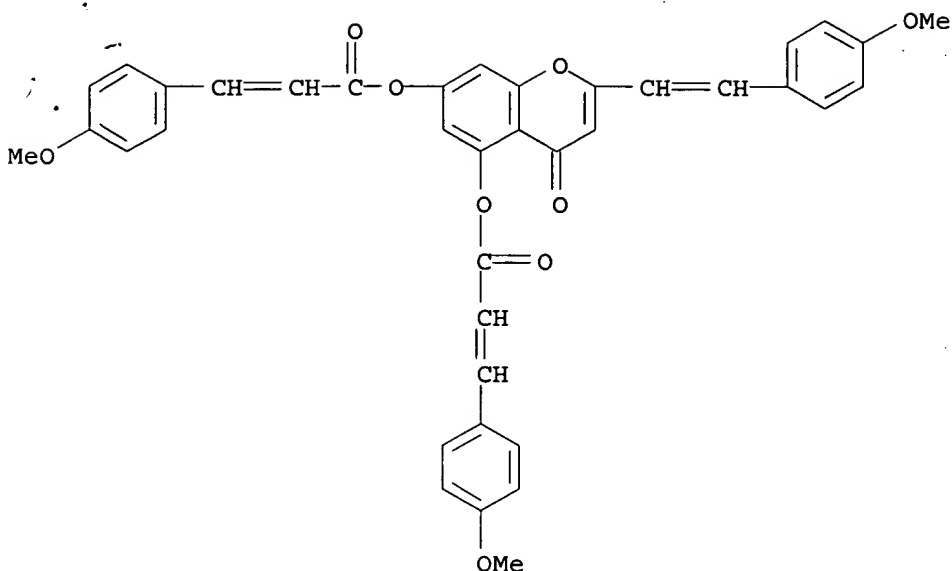
OTHER SOURCE(S): CASREACT 26:25962

AB cf. C. A. 26,727. PhCH₂CO₂H (24 g.), (PhCH₂CO)₂O (38 g.) and α-C₁₀H₇OH (20 g.) with 10 g. ZnCl₂, heated 1 hr. at 150°, give 17 g. 2-phenylacetyl-1-naphthol (I), pale yellow, m. 96°; in the absence of the anhydride the yield was 11 g.; Ac derivative, m. 109°; Bz derivative, m. 161°; 2,4-dinitrophenylhydrazones, bright orange, m. 252°. 1,2-C₁₀H₆(OH)COCH₂CH₂Ph (11), m. 99°; acetate, m. 91°; benzoate, m. 88°; 2,4-dinitro-phenylhydrazones, deep orange, m. 223-4°. II and HCO₂Et in Et₂O with Na give a mixture of 3-benzyl-1,4-α-naphthopyrone (III), m. 149°, and 2-hydroxy-3-benzyl-2,3-dihydro-1,4-α-naphthopyrone (IV), 172°; IV, boiled with 20% H₂SO₄, gives III; fusion with 50% KOH gives quantitatively II. III has a bright bluish green fluorescence in H₂SO₄; boiling AcOH gives a blue fluorescence but no color on addition of H₂SO₄. I, Ac₂O and AcONa, refluxed 8 hrs., give 3-phenyl-2-methyl-1,4-α-naphthopyrone, m. 203-4°; Bz₂O gives the 2,3-di-Ph derivative, cream, m. 206-7°. II, Ac₂O and AcONa give the 3-benzyl-2-methyl derivative, m. 139°; Bz₂O gives 3-benzyl-α-naphthoflavone, pale cream, m. 187°. I, (PhCH:CH)₂O and PhCH:CHCO₂Na give 3-phenyl-2-styryl-1,4-α-naphthopyrone, pale cream, m. 262-3°; II gives the 3-benzyl derivative, m. 223°. Dry HCl passed into a cooled mixture of α-C₁₀H₇OH, PhAcCHCN and ZnCl₂ in Et₂O give 3-phenyl-4-methyl-1,2-α-naphthopyrone, m. 212°; the 3-Ac derivative, m. 147°, results from refluxing 2,1-AcC₁₀H₆OH, PhCH₂CH₂CO₂Na and Ac₂O for 30 hrs. 2,1-BzC₁₀H₆OH, Ac₂O and AcONa give the acetate, m. 118°; PhCH₂CO₂Na in place of AcONa gives 3,4-diphenyl-1,2-α-naphthopyrone, pale yellow, m. 237°.

IT 859085-60-2, Chromone, 5,7-dihydroxy-2-(p-methoxystyryl)-, bis(p-methoxycinnamate) (preparation of)

RN 859085-60-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED



L33 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1923:8209 CAPLUS

DOCUMENT NUMBER: 17:8209

ORIGINAL REFERENCE NO.: 17:1469g-i,1470a

TITLE: Aldehyde derivatives of rhodanines and their fission products. II

AUTHOR(S): Gendelman, Leon

SOURCE: Monaish. (1923), 43, 537-43

DOCUMENT TYPE: Journal

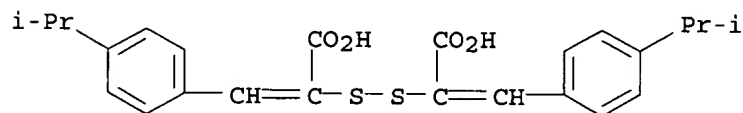
LANGUAGE: Unavailable

AB cf. Andreasch, C. A. 13, 1833. Isopropylthiol-cinnamic acid, $\text{Me}_2\text{CHC}_6\text{H}_4\text{CH}:\text{C}(\text{SH})\text{CO}_2\text{H}$, is obtained by the action of AmONa upon β -cuminalrhodanine in AmOH as small yellowish needles, and is transformed into the disulfide, $\text{C}_{24}\text{H}_{26}\text{O}_4\text{S}_2$ by alc. I, yellow needles, m. 190° . β -p-Chlorobenzal- γ -phenyl rhodanine, from phenylrhodanine and $\text{ClC}_6\text{H}_4\text{CHO}$, yellow needles, m. 148° . Fission with $\text{Ba}(\text{OH})_2$ gives p-chlorothiolicinnamic acid, yellowish white needles, m. 157° . β -p-Chlorobenzalithiohydantoin, yellow needles, sinter 230° but do not m. β -p-Toluylidene- γ -phenylrhodanine, yellow needles, m. 136° . p-Methylthiolcinnamic acid, fine yellow needles, m. 159° . Disulfide, fine yellow needles, m. 212° . Methylbenzylthiocinnamic acid, $\text{MeC}_6\text{H}_4\text{CH}:\text{C}(\text{SC}_7\text{H}_7)\text{CO}_2\text{H}$, small, pale yellow needles, m. 134° . β -3,4-Dihydroxybenzalrhodanine, yellowish brown powder, does not m. 270° . The alkaline solution is reddish violet, the acid, yellow. Attempts to prepare a thiol derivative failed. γ -Camphyl-rhodanine (A), thick, reddish yellow oil. The bensal compound forms bright yellow needles, m. $49-50^\circ$. β -Dimethxylaminobenzal compound, orange-red needles, m. 129° . Camphylrhodanine-2-indolindigo, from A and isatin, dark red glistening needles. β -m-Nitrobenzal compound of A, pale yellow needles, m. 126° .

IT 861620-58-8, Cinnamic acid, α,α' -dithiobis[p-isopropyl-(preparation of)]

RN 861620-58-8 CAPLUS

CN Cinnamic acid, α,α' -dithiobis[p-isopropyl- (2CI) (CA INDEX NAME)]



=> s' l30 full

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 14:41:55 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 48211 TO ITERATE

100.0% PROCESSED 48211 ITERATIONS (5 INCOMPLETE) 16441 ANSWERS
SEARCH TIME: 00.00.05

L34 16441 SEA SSS FUL L30

L35 12044 L34

=> s l35 and py<1999

19111731 PY<1999

L36 6978 L35 AND PY<1999

=> s l36 and polymerizable

26219 POLYMERIZABLE

L37 950 L36 AND POLYMERIZABLE

=> s l37 and mesogenic

5704 MESOGENIC

L38 18 L37 AND MESOGENIC

=> d 1-10 ibib abs hitstr

L38 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:816433 CAPLUS

DOCUMENT NUMBER: 130:66884

TITLE: **Polymerizable**, optically active dioxolane
diesters and liquid crystalline polymers

INVENTOR(S): Buchecker, Richard; Lukac, Teodor; Schmitt, Klaus;
Villiger, Alois

PATENT ASSIGNEE(S): Rolic A.-G., Switz.

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

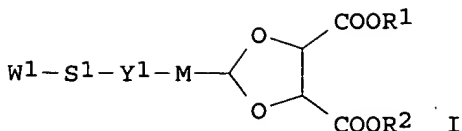
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855473	A1	19981210	WO 1998-IB833	19980529 <--
W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9873474	A1	19981221	AU 1998-73474	19980529 <--
EP 988299	A1	20000329	EP 1998-920690	19980529
EP 988299	B1	20020703		
R:	CH, DE, ES, FR, GB, IT, LI, NL, SE, FI			
JP 2002510299	T2	20020402	JP 1999-501934	19980529
US 6120859	A	20000919	US 1999-451754	19991201
HK 1023994	A1	20021004	HK 2000-102716	20000504
PRIORITY APPLN. INFO.:			EP 1997-108745	A 19970602

GI



AB **Polymerizable** optically active compds. having general structure I [W1 = CH2:CH, CH2:CHPh, CH2:CHCO2, CH2:C(CH3)CO2, CH2:C(Cl)CO2, CH2:C(Ph)CO2, CH2:CHCO2C6H4, CH2:CHCONH, CH2:CHCON(CH3), CH2:C(CH3)CONH, CH2:C(CH3)CON(CH3), CH2:C(Cl)CONH, CH2:C(Ph)CONH, CH2:CHO, CH2:CHOOC, PhCH:CH, epoxy; S1 = C2-20 alkylene (substituted) by F, Cl, CN or interrupted by O, COO, CH:CH, C≡C, NH, NHCO, CONH; Y1 = single bond, O, COO, OOC, OCOO, S, CONH, NHCO; M = divalent **mesogenic** group; R1, R2 = C≤8 alkyl] are synthesized and polymerized to provide cholesteric liquid crystal layers which are in color filters.

IT 217651-71-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (**polymerizable**, optically active dioxolane diesters and liquid crystalline polymers)

RN 217651-71-3 CAPLUS

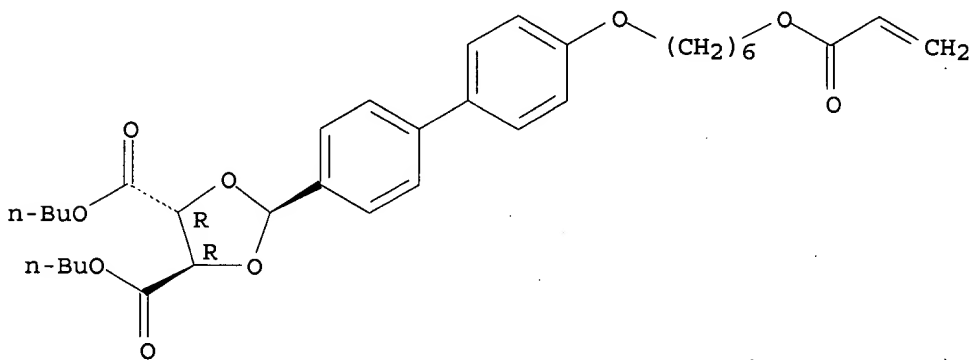
CN 1,3-Dioxolane-4,5-dicarboxylic acid, 2-[4'-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy][1,1'-biphenyl]-4-yl]-, dibutyl ester, (4R,5R)-, polymer with 2-chloro-1,4-phenylene bis[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate], 2-methyl-1,4-phenylene bis[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate] and pentyl 2,5-bis[[4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 217651-57-5

CMF C34 H44 O9

Absolute stereochemistry.

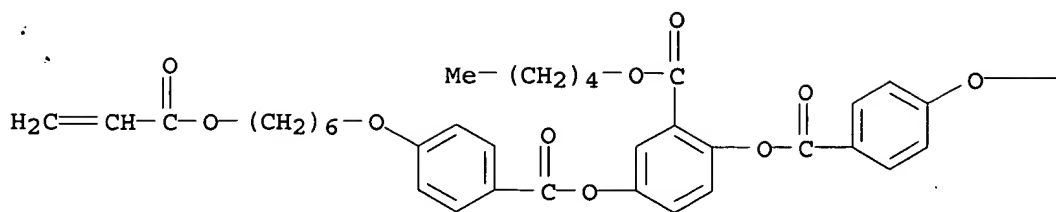


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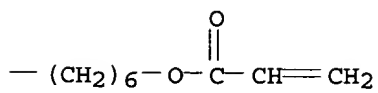
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CMF C44 H52 O12

PAGE 1-A



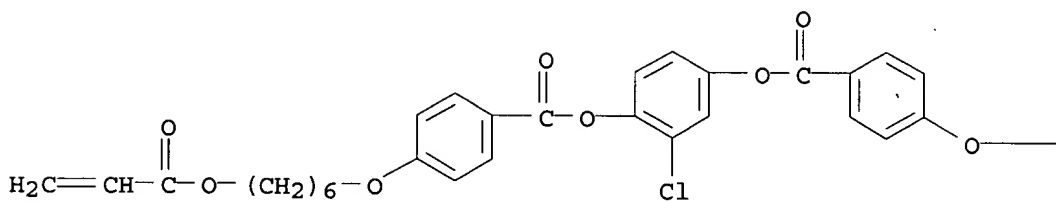
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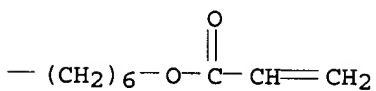
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CRN 150809-90-8
CMF C38 H41 Cl O10

PAGE 1-A



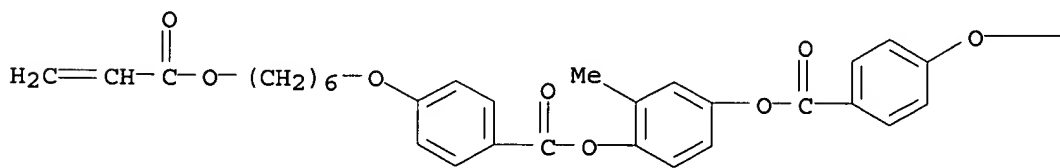
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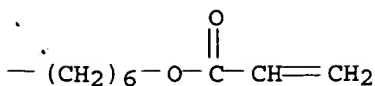


CM 4

CRN 125248-71-7
CMF C39 H44 O10

PAGE 1-A





REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:709154 CAPLUS

DOCUMENT NUMBER: 129:337983

TITLE: Preparation of **polymerizable** liquid-crystal compounds, compositions containing them, and their uses

INVENTOR(S): Schuhmacher, Peter; Meyer, Frank; Etzbach, Karl-Heinz; Siemensmeyer, Karl

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9847979	A1	19981029	WO 1998-EP2282	19980417 <--
W: JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19716822	A1	19981029	DE 1997-19716822	19970422 <--
EP 977822	A1	20000209	EP 1998-921464	19980417
R: CH, DE, GB, LI, NL				
JP 2001521538	T2	20011106	JP 1998-544996	19980417
PRIORITY APPLN. INFO.:			DE 1997-19716822	A 19970422
			WO 1998-EP2282	W 19980417

OTHER SOURCE(S): MARPAT 129:337983

AB The invention relates to a method for producing liquid-crystal compds. of the formula $\text{P1Y1A1O} \text{MOA2Y2P2}$ or mixts. of such compds., where P1,P2 = H, C1-4 alkyl, or reactive radicals by means of which polymerization can be induced; Y1,Y2 = single bond, O, S, OCO, COO, OCOO, CONR, NRCO, OCONR, NRCOO, or NRCONR; R = H or C1-4 alkyl; A1,A2 = C1-30 spacer in which the C chain may be interrupted by ether O, thioether S, or nonadjacent imino or C1-4 alkylimino groups; and M = a **mesogenic** group. The invention also relates to compns. containing these compds. and compns. which can be obtained using the inventive method. The invention further relates to a method for printing and coating objects with these compds., with compns. containing these compds., or compns. which can be obtained using the inventive method or the objects thus printed or coated. The invention relates to the use of the compds. or compns. for producing optical devices or liquid-crystal dyes, as well as to liquid-crystal colorants and aqueous emulsions or dispersions containing the compds. or compns. and to pigments which can be obtained from the compds. or compns.

IT 215057-75-3P 215057-78-6P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of **polymerizable** liquid-crystal compds. for)

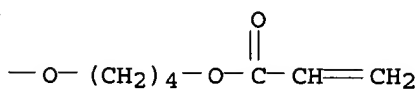
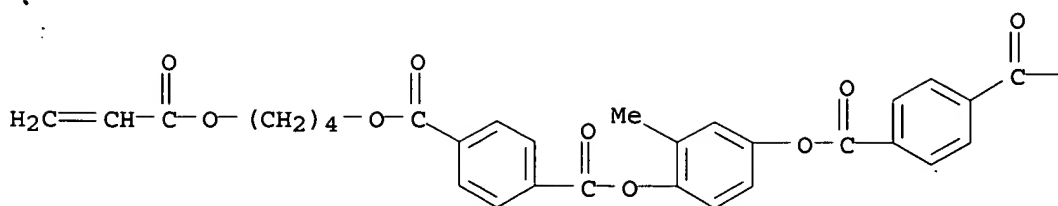
RN 215057-75-3 CAPLUS

CN 1,4-Benzenedicarboxylic acid, 2-methyl-1,4-phenylene bis[4-[(1-oxo-2-propenyl)oxy]butyl] ester, mixt. with 4-chlorobutyl 2-propenoate and 6-chlorohexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

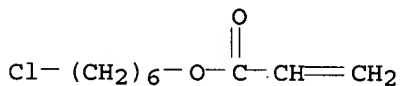
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CMF C37 H36 O12



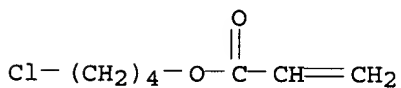
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CRN 133123-02-1
CMF C9 H15 Cl O2



CM 3

CRN 2206-87-3
CMF C7 H11 Cl O2

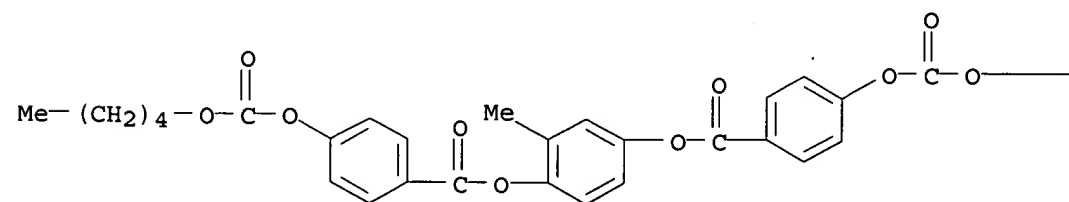


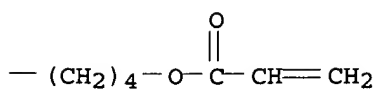
RN 215057-78-6 CAPLUS

CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 2-methyl-4-[[[4-[(pentyloxy)carbonyl]oxy]benzoyl]oxy]phenyl ester, mixt. with 4-chlorobutyl 2-propenoate, 6-chlorohexyl 2-propenoate, 3-methyl-4-[[[4-[(pentyloxy)carbonyl]oxy]benzoyl]oxy]phenyl 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]benzoate, 2-methyl-1,4-phenylene 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]benzoate and 2-methyl-1,4-phenylene 4-[(pentyloxy)carbonyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 215057-77-5
CMF C35 H36 O12

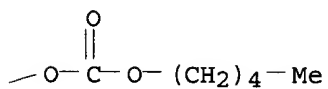
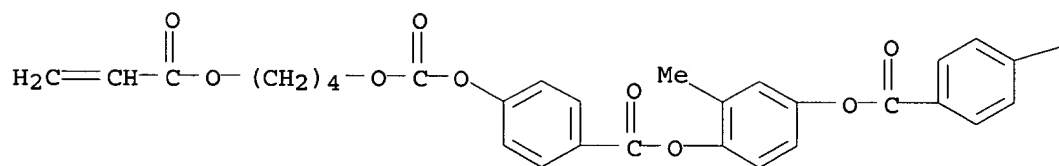




CM 2

CRN 215057-76-4

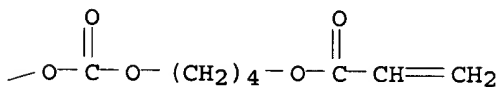
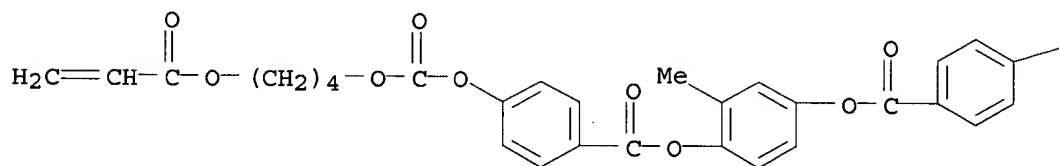
CMF C35 H36 O12



CM 3

CRN 187585-64-4

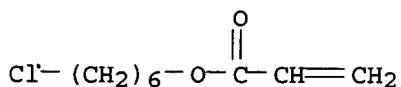
CMF C37 H36 O14



CM 4

CRN 133123-02-1

CMF C9 H15 Cl O2

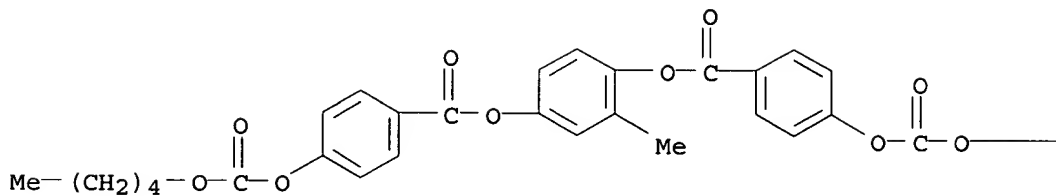


CM 5

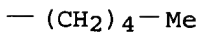
CRN 52710-10-8

CMF C33 H36 O10

PAGE 1-A



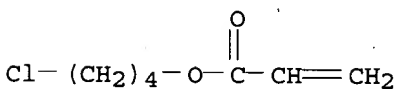
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CM 6

CRN 2206-87-3

CMF C7 H11 Cl O2



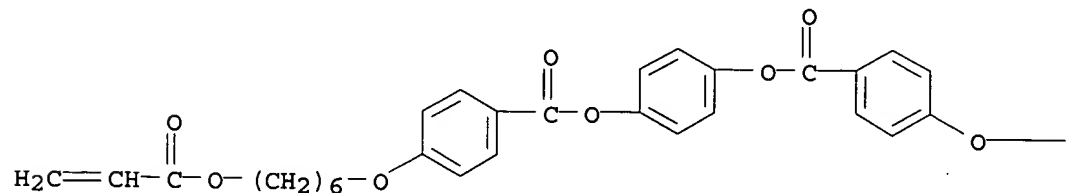
IT 123864-17-5P 125248-71-7P 132694-65-6P
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 172257-88-4P 172257-91-9P 172258-06-9P
 215057-58-2P 215057-59-3P 215057-60-6P
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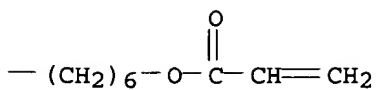
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of; preparation of **polymerizable** liquid-crystal compns. containing)

RN 123864-17-5 CAPLUS

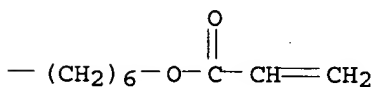
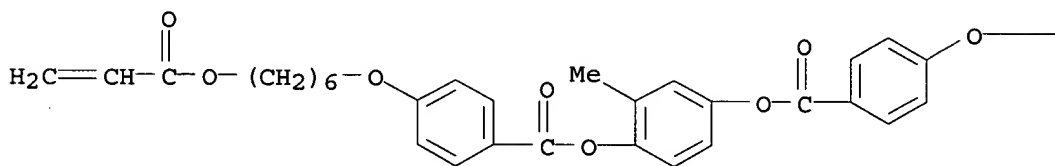
CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A

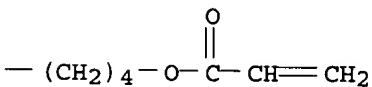
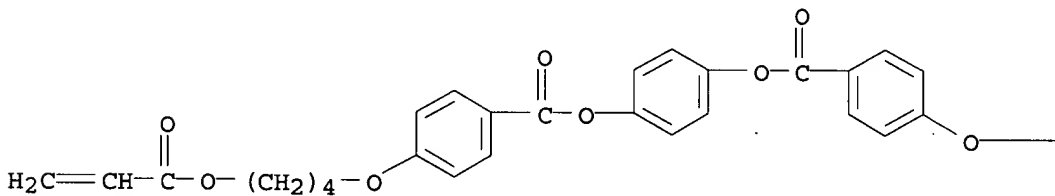




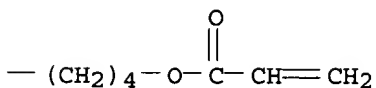
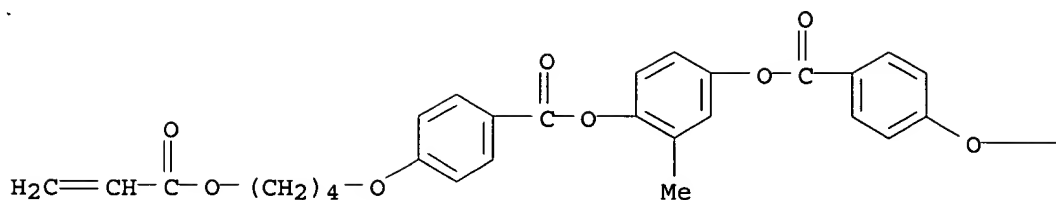
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 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)



RN 132694-65-6 CAPLUS
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 (9CI) (CA INDEX NAME)

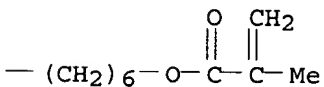
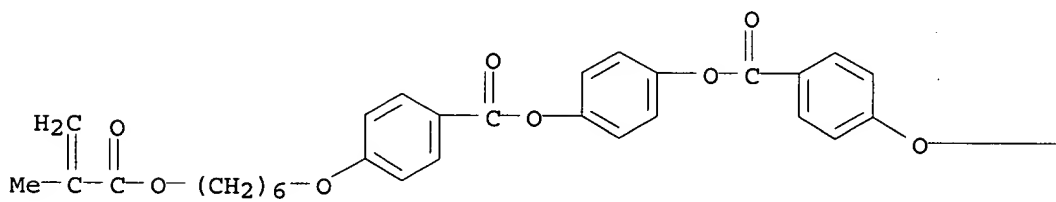


RN 132900-75-5 CAPLUS
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 ester (9CI) (CA INDEX NAME)



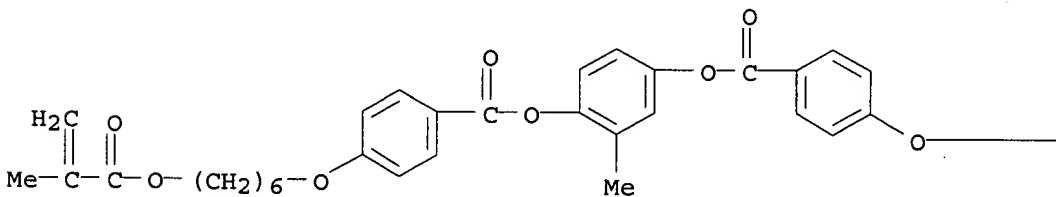
RN 142060-41-1 CAPLUS

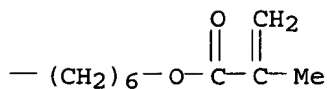
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RN 157719-48-7 CAPLUS

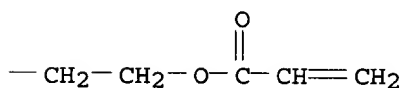
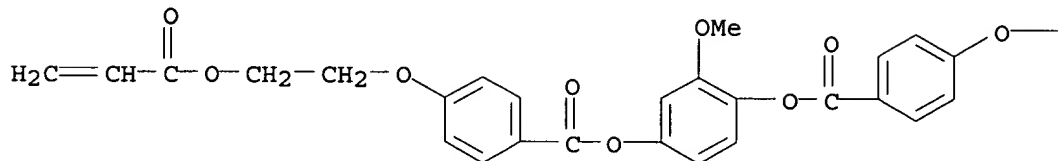
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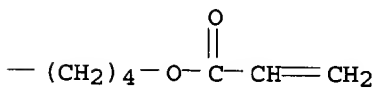
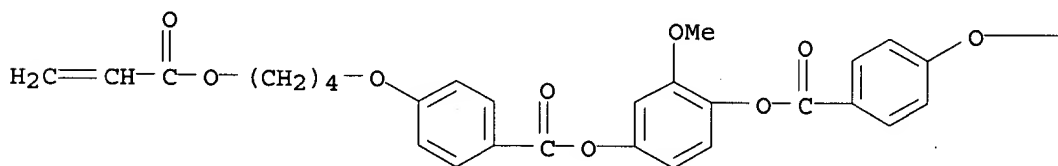
RN 172257-88-4 CAPLUS

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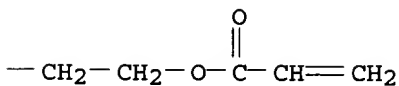
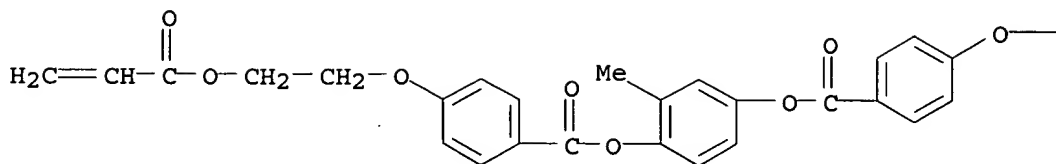
RN 172257-91-9 CAPLUS

CN Benzoic acid, 4-[4-[(1-oxo-2-propenyl)oxy]butoxy]-, 2-methoxy-1,4-phenylene ester (9CI) (CA INDEX NAME)

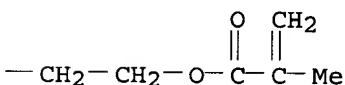
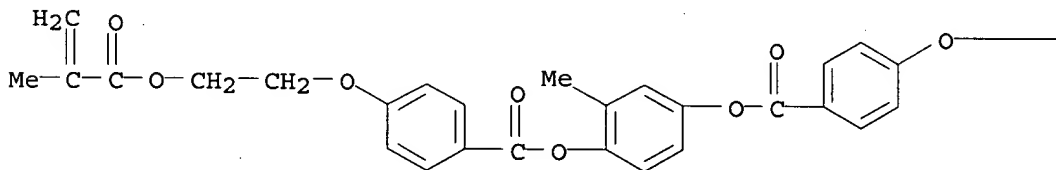


RN 172258-06-9 CAPLUS

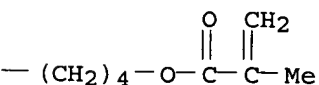
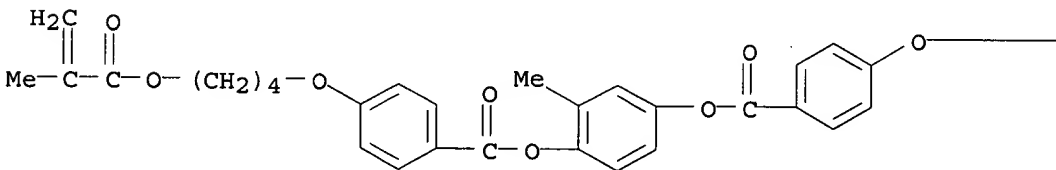
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RN 215057-58-2 CAPLUS
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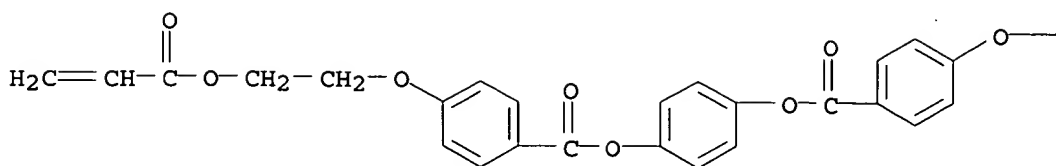


RN 215057-59-3 CAPLUS
 CN Benzoic acid, 4-[4-[(2-methyl-1-oxo-2-propenyl)oxy]butoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

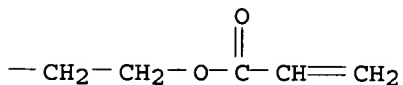


RN 215057-60-6 CAPLUS
 CN Benzoic acid, 4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, 1,4-phenylene ester

PAGE 1-A

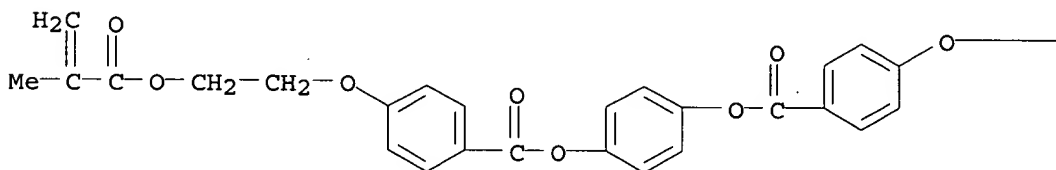


PAGE 1-B

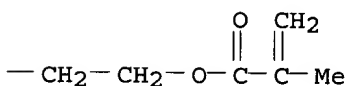


RN 215057-61-7 CAPLUS
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PAGE 1-A

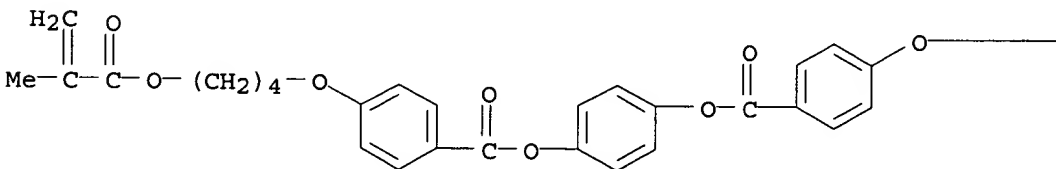


PAGE 1-B

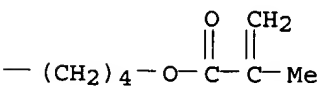


RN 215057-62-8 CAPLUS
CN Benzoic acid, 4-[4-[(2-methyl-1-oxo-2-propenyl)oxy]butoxy]-, 1,4-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:624278 CAPLUS
DOCUMENT NUMBER: 129:209198
TITLE: Circular UV polarizer
INVENTOR(S): Coates, David; Jolliffe, Emma Jane; Nolan, Patrick
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: Brit. UK Pat. Appl., 29 pp.
CODEN: BAXXDU

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2315072	A1	19980121	GB 1997-13927	19970701 <--
GB 2315072	B2	20000913		
US 5989461	A	19991123	US 1997-888363	19970703
			EP 1996-110805	A 19960704

PRIORITY APPLN. INFO.:

AB Liquid crystal circular UV polarizers based on polymerized mesogens are described which are produced by curing a composition comprising a **mesogenic** component comprising ≥ 1 achiral **mesogenic** compds. having ≥ 1 **polymerizable** end group attached optionally via a spacer group to the **mesogenic** core, a component comprising ≥ 1 chiral compds. in such an amount that the maximum wavelength of reflection of the composition is in the range 320-440 nm, and a photoinitiator or thermal initiator. Methods for producing linearly polarized UV radiation using the polarizers, as well as their use in spatial circular UV modulators, are also described.

IT 182311-51-9 197663-61-9 212180-04-6

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(liquid crystal circular UV polarizers based on polymerized mesogens)

RN 182311-51-9 CAPLUS

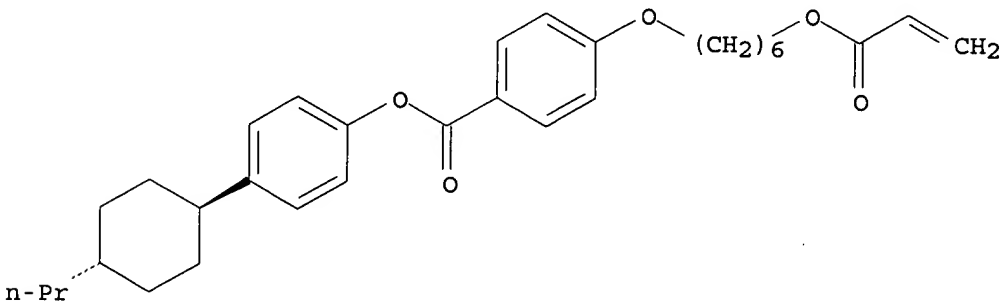
CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester, polymer with trans-4-(4-propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 182311-45-1

CMF C31 H40 O5

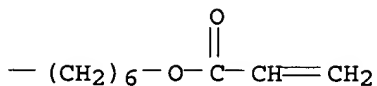
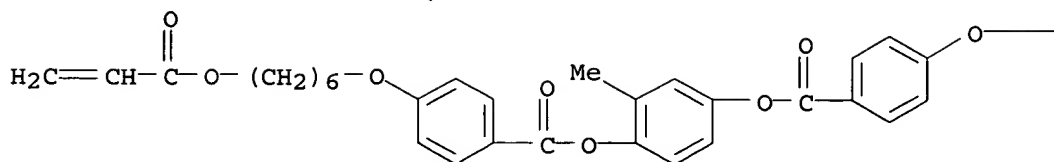
Relative stereochemistry.



CM 2

CRN 125248-71-7

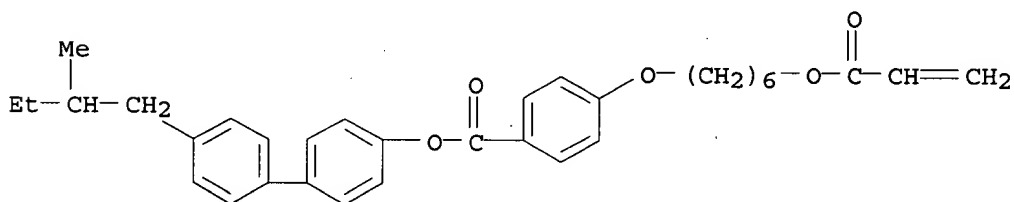
CMF C39 H44 O10



RN 197663-61-9 CAPLUS
 CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester, polymer with 4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

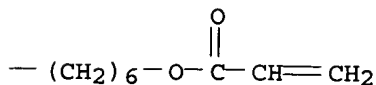
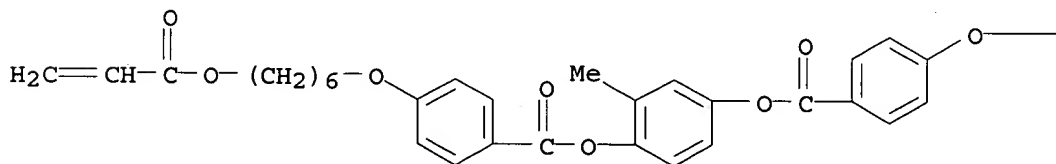
CM 1

CRN 168904-02-7
 CMF C33 H38 O5



CM 2

CRN 125248-71-7
 CMF C39 H44 O10



RN 212180-04-6 CAPLUS
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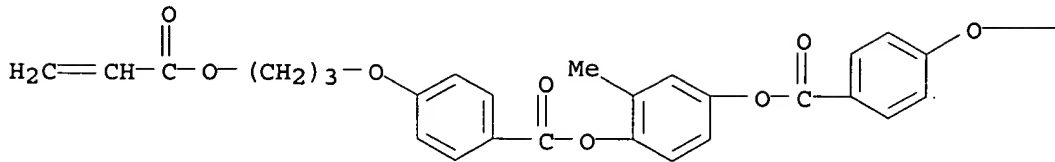
propenyl)oxy]hexyl]oxy]benzoate] (9CI) (CA INDEX NAME)

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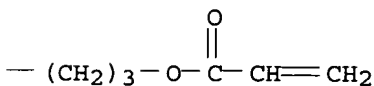
CRN 174063-87-7

CMF C33 H32 O10

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PAGE 1-B

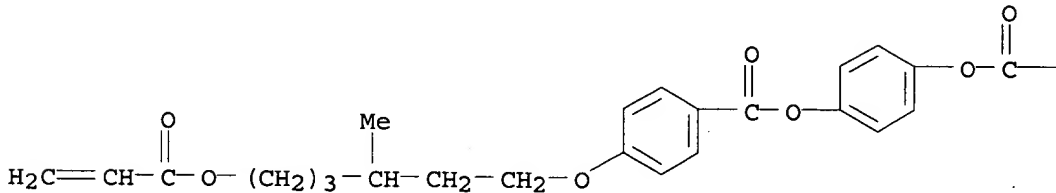


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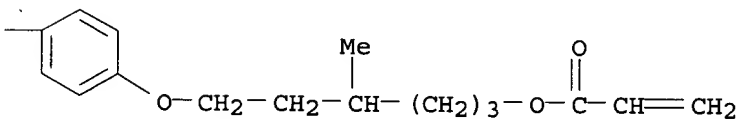
CRN 150809-89-5

CMF C40 H46 O10

PAGE 1-A



PAGE 1-B



L38 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:608948 CAPLUS

DOCUMENT NUMBER: 129:203403

TITLE: Thermochromic polymerizable mesogenic composition containing both chiral and achiral polymerizable mesogenic compounds and a photoinitiator, anisotropic polymers therefrom, and colored films

INVENTOR(S): Jolliffe, Emma Jane; Coates, David

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: Brit. UK Pat. Appl., 60 pp.

CODEN: BAXXDU

DOCUMENT TYPE:

Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2315760	A1	19980211	GB 1997-15766	19970725 <--
GB 2315760	B2	20010110		
US 6117920	A	20000912	US 1999-350993	19990712
US 6316066	B1	20011113	US 2000-522708	20000310

PRIORITY APPLN. INFO.:

EP 1996-112001	A	19960725
US 1997-900533	B1	19970725
US 1999-350993	A3	19990712

AB The title compns., optionally containing a dye, are useful for optical data storage, photomasks, decorative pigments, cosmetics, security applications, active/passive optical elements such as polarizers or retarders, color filters, scattering displays, or adhesives. Polymer films of different color are prepared by filling a liquid crystal mixture of CH₂:CHCO₂(CH₂)₆₀-p-C₆H₄CO₂-p-C₆H₄-p-C₆H₉C₃H₇ 16.5, CH₂:CHCO₂(CH₂)₃₀-p-C₆H₄-CO₂-p-C₆H₄-p-C₆H₉C₃H₇ 9.5, CH₂:CHCCO₂(CH₂)₆₀-p-C₆H₄CO₂-p-C₆H₄CH₂CH(Me)Et 45.0, CH₂:CHCO₂(CH₂)₆-p-C₆H₄CO₂-p-C₆H₄-p-C₆H₄CCH₂CH(Me)Et 20.0, 1,4-[CH₂:CHCO₂(CH₂)₃₀-p-C₆H₄CO₂]2-3-MeC₆H₃ 10.0% between two glass plates and exposing to UV light.

IT 212260-13-4P 212260-14-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (thermochromic **polymerizable mesogenic** composition containing both chiral and achiral **polymerizable mesogenic** compds. for anisotropic polymers used in preparing multi-color images)

RN 212260-13-4 CAPLUS

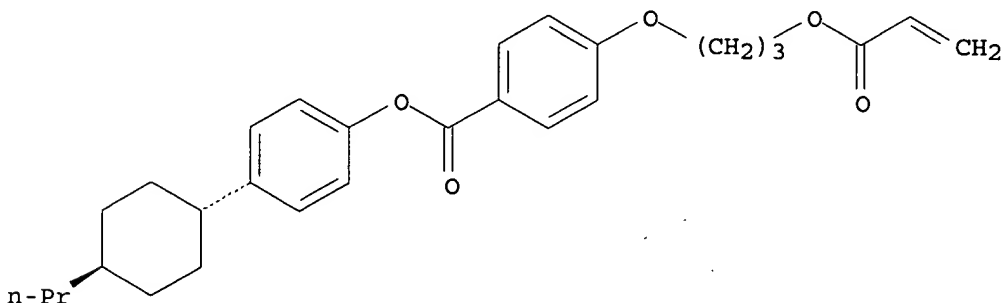
CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl ester, polymer with 4-(2-methylbutyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate, 2-methyl-1,4-phenylene bis[4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate], trans-4-(4-propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate and trans-4-(4-propylcyclohexyl)phenyl 4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 196881-71-7

CMF C28 H34 O5

Relative stereochemistry.

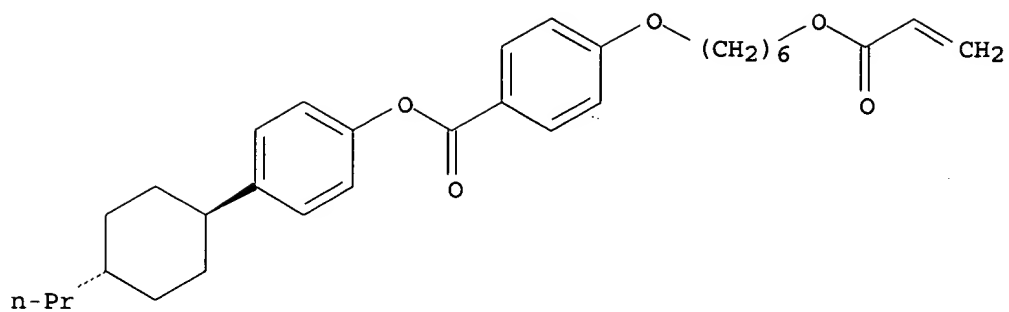


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CRN 182311-45-1

CMF C31 H40 O5

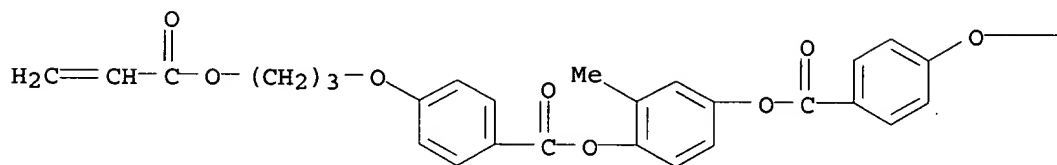
Relative stereochemistry.



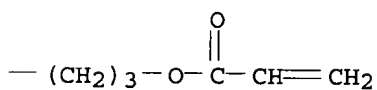
CM 3

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CMF C33 H32 O10

PAGE 1-A

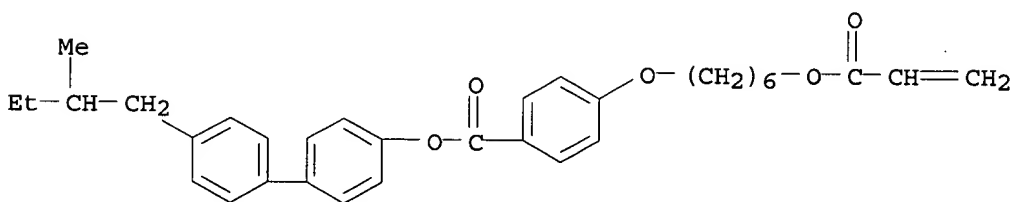


PAGE 1-B



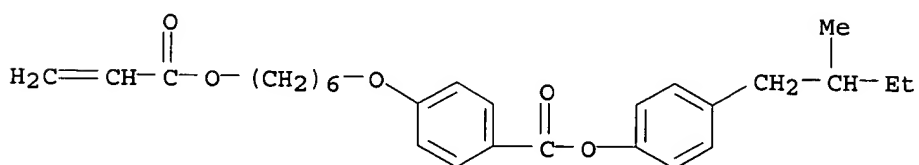
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CMF C33 H38 O5



CM 5

CRN 168903-96-6
CMF C27 H34 O5



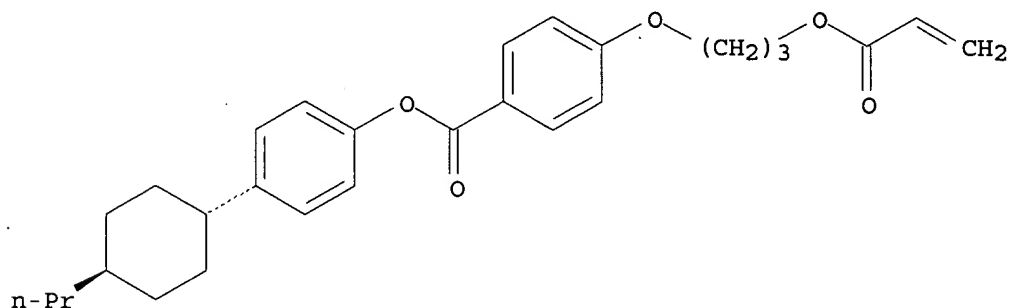
RN 212260-14-5 CAPLUS
 CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl ester, polymer with 4-(2-methylbutyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate, 1,4-phenylene bis[4-[[11-[(1-oxo-2-propenyl)oxy]undecyl]oxy]benzoate], trans-4-(4-propylcyclohexyl)phenyl 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate and trans-4-(4-propylcyclohexyl)phenyl 4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 196881-71-7

CMF C28 H34 O5

Relative stereochemistry.

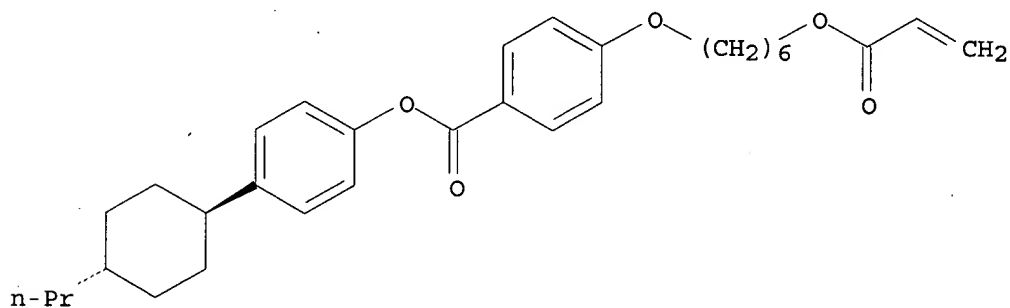


CM 2

CRN 182311-45-1

CMF C31 H40 O5

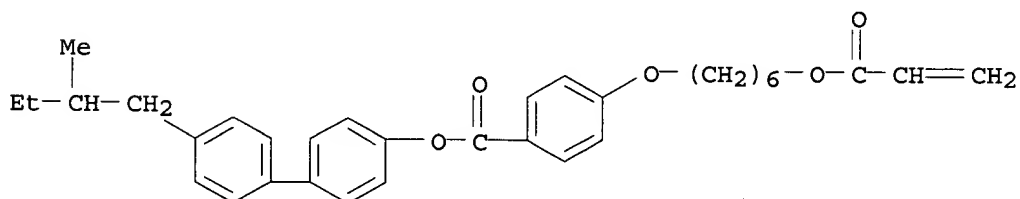
Relative stereochemistry.



CM 3

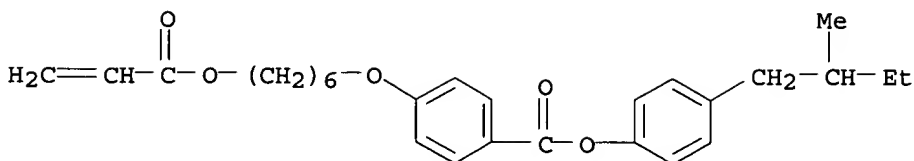
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CM 4

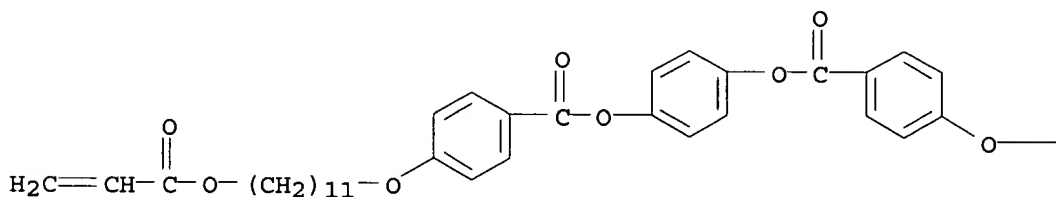
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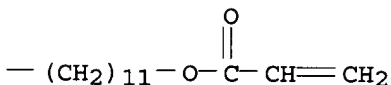
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CRN 132900-74-4
CMF C48 H62 O10

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PAGE 1-B



L38 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:353083 CAPLUS
DOCUMENT NUMBER: 129:47742
TITLE: **Polymerizable** oligomesogenic compounds
INVENTOR(S): Etzbach, Karl-Heinz; Schuhmacher, Peter; Siemensmeyer, Karl
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19649056	A1	19980528	DE 1996-19649056	19961127 <--
CA 2272103	AA	19980604	CA 1997-2272103	19971111 <--
WO 9823580	A1	19980604	WO 1997-EP6289	19971111 <--
W: AL, AM, AU, AZ, BG, BR, BY, CA, CN, CZ, GE, HU, IL, JP, KG, KR, KZ, LT, LV, MD, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, UA, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9854812	A1	19980622	AU 1998-54812	19971111 <--
EP 944577	A1	19990929	EP 1997-951170	19971111
R: DE, FR, GB, IT, NL				
CN 1245484	A	20000223	CN 1997-181557	19971111
JP 2001505879	T2	20010508	JP 1998-524205	19971111

KR 2000057240	A	20000915	KR 1999-704610	19990525
US 6335462	B1	20020101	US 1999-308634	19990527
PRIORITY APPLN. INFO.:			DE 1996-19649056	A 19961127
			WO 1997-EP6289	W 19971111

OTHER SOURCE(S): MARPAT 129:47742

AB The compds. have the general formula $X[Y1A1Y2MY3A2Z]_n$, where X = a Si-free n-bonded central unit; A1,A2 = single bond or spacer; Y1-3 = single bond, O, S, CO, OCO, COO, OCOO, CON(R), (R)NCO, COS, or SCO; M = mesogenic group; Z = polymerizable group; n = 2-6; R = H or C1-4 alkyl; and MY3A2Z can be a cholesterol residue. The compds. are useful as orientation layers for liquid-crystal materials; photocurable adhesives; monomers for preparation of liquid-crystal networks; base materials for preparation of chiral dopable polymerizable liquid-crystal systems; polymerizable matrix monomers for polymer-dispersed displays; base materials for polymerizable liquid-crystal materials for optical devices, e.g. polarizers, cutoff plates, or lenses; or in combination with low-mol.-weight polymerizable liquid-crystal compds. as film formers.

IT 208107-99-7P 208108-00-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(for use in liquid-crystal materials and displays and in optical devices)

RN 208107-99-7 CAPLUS

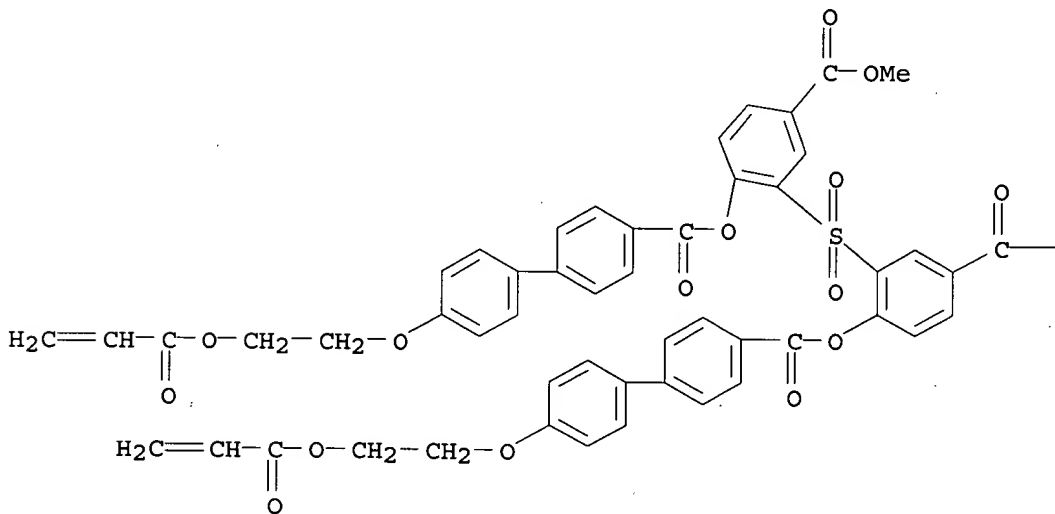
CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, sulfonylbis[4-(methoxycarbonyl)-2,1-phenylene] ester, homopolymer (9CI)
(CA INDEX NAME)

CM 1

CRN 208107-95-3

CMF C52 H42 O16 S

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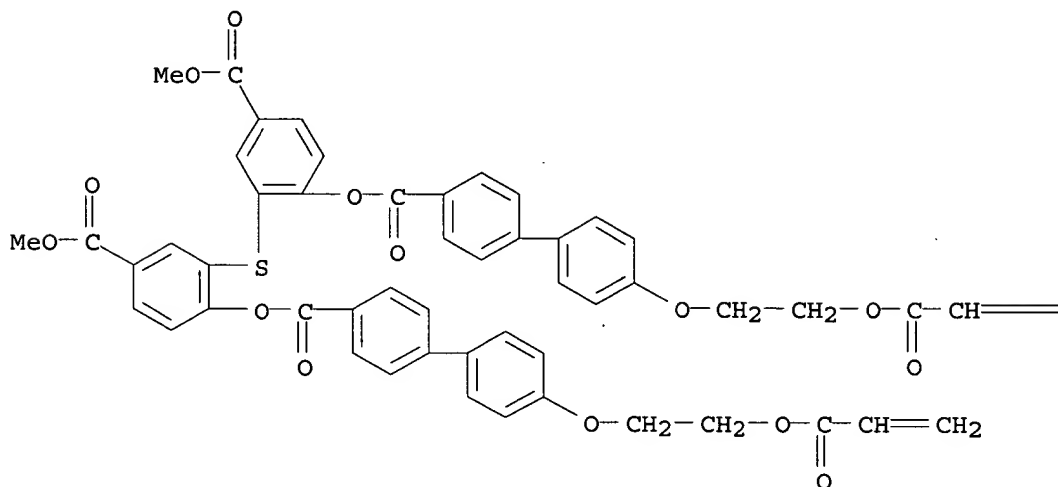
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RN 208108-00-3 CAPLUS
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, thiobis[4-(methoxycarbonyl)-2,1-phenylene] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 208107-93-1
 CMF C52 H42 O14 S

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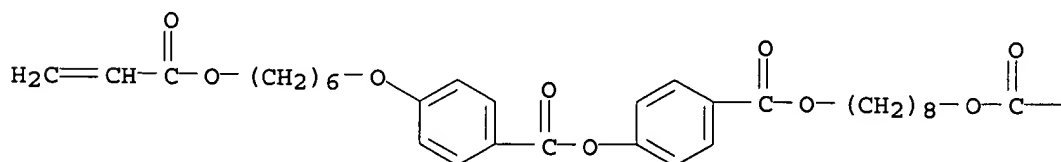


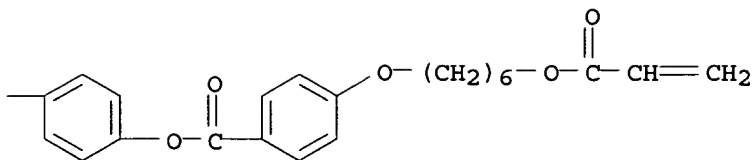
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IT 208107-86-2P 208107-87-3P 208107-88-4P
 208107-89-5P 208107-91-9P 208107-92-0P
 208107-93-1P 208107-95-3P
 RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of, for use in liquid-crystal materials and displays and in optical devices)
 RN 208107-86-2 CAPLUS
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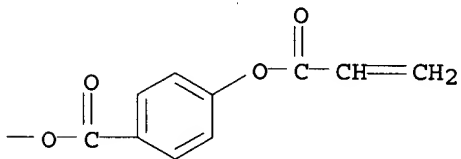
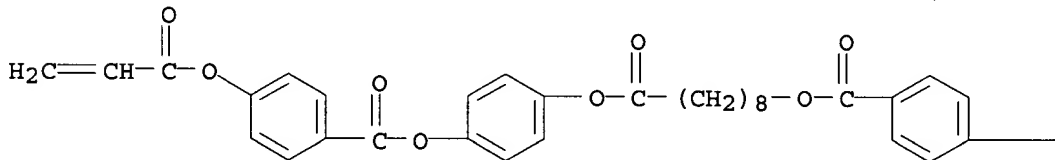
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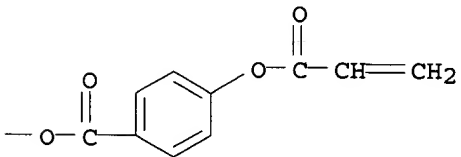
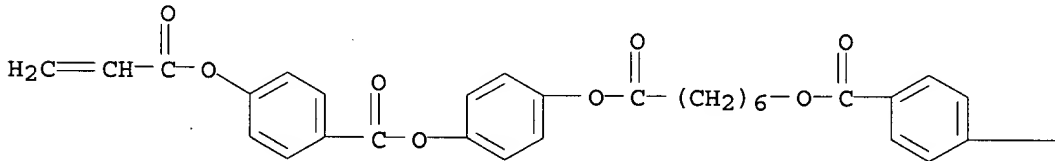
RN 208107-87-3 CAPLUS

CN Benzoic acid, 4-[[4-[(1-oxo-2-propenyl)oxy]benzoyl]oxy]-,
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(9CI) (CA INDEX NAME)



RN 208107-88-4 CAPLUS

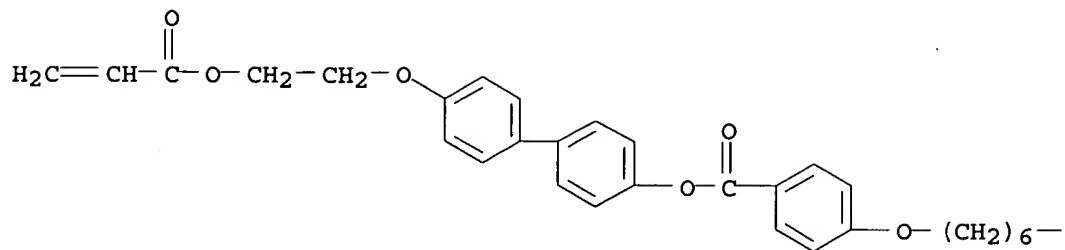
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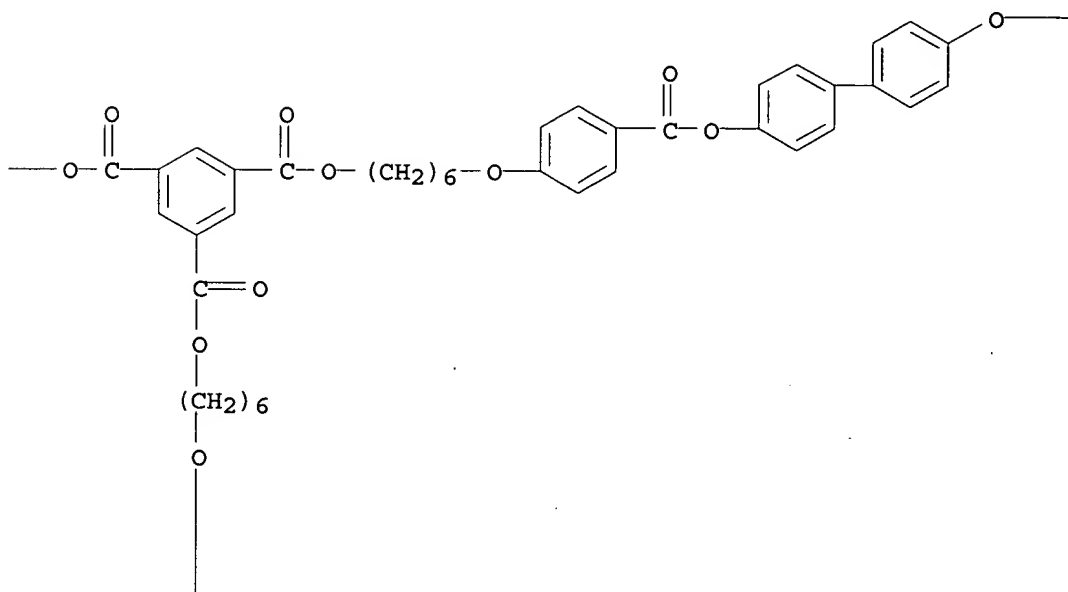
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(9CI) (CA INDEX NAME)

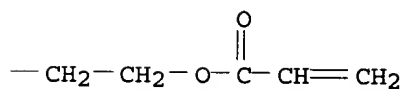
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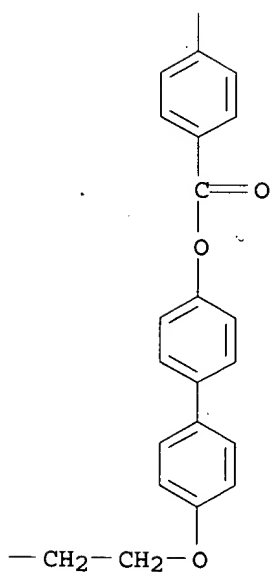
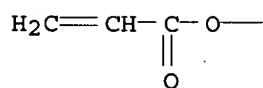


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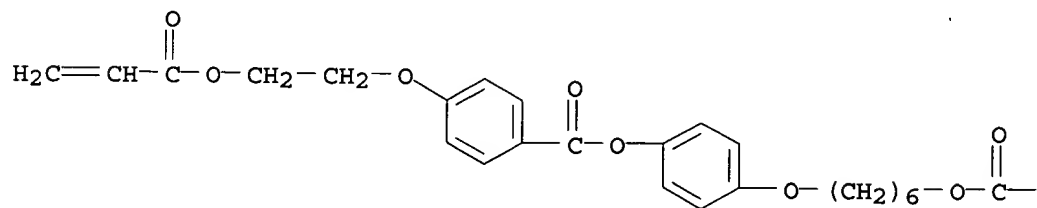


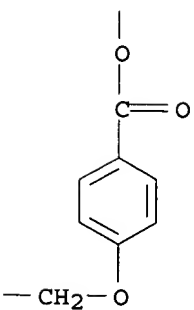
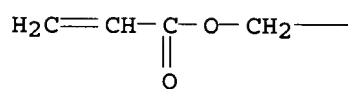
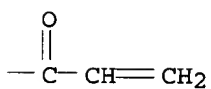
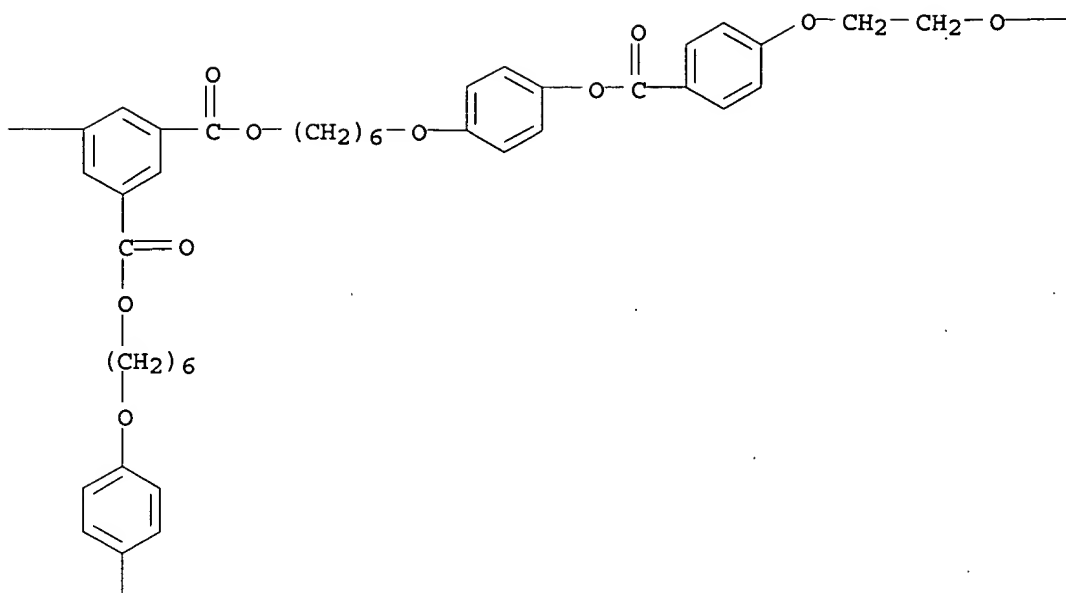
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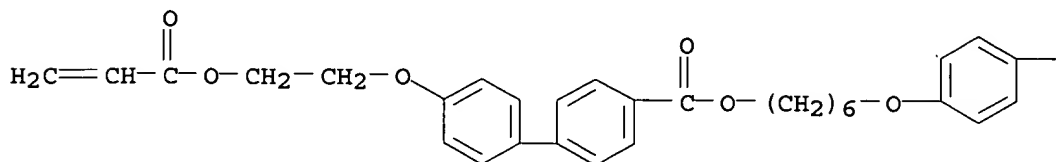
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 CN 1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]benzoyl]oxy]phenoxy]hexyl] ester (9CI) (CA INDEX NAME)



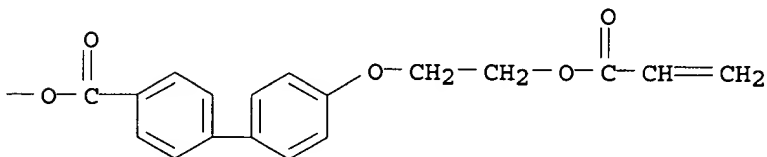


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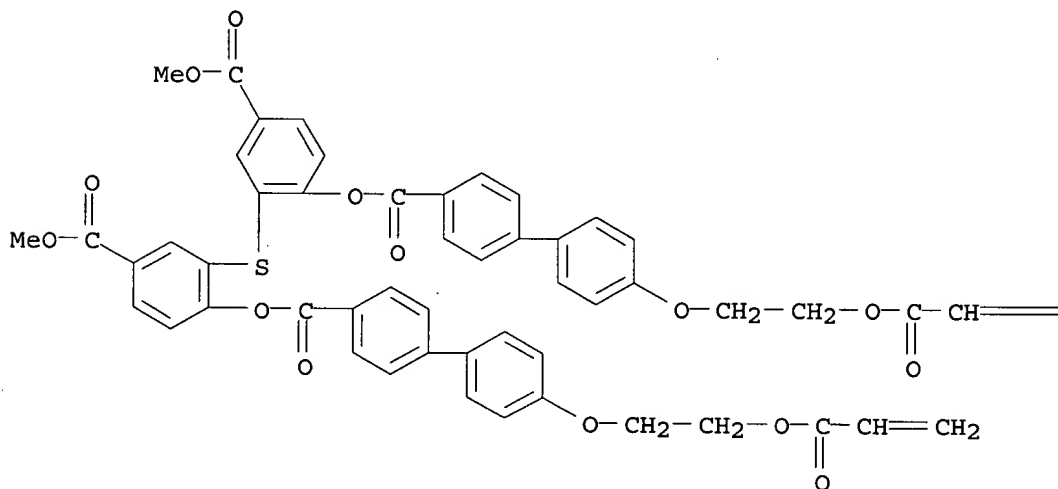


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RN 208107-93-1 CAPLUS
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, thiobis[4-(methoxycarbonyl)-2,1-phenylene] ester (9CI) (CA INDEX NAME)

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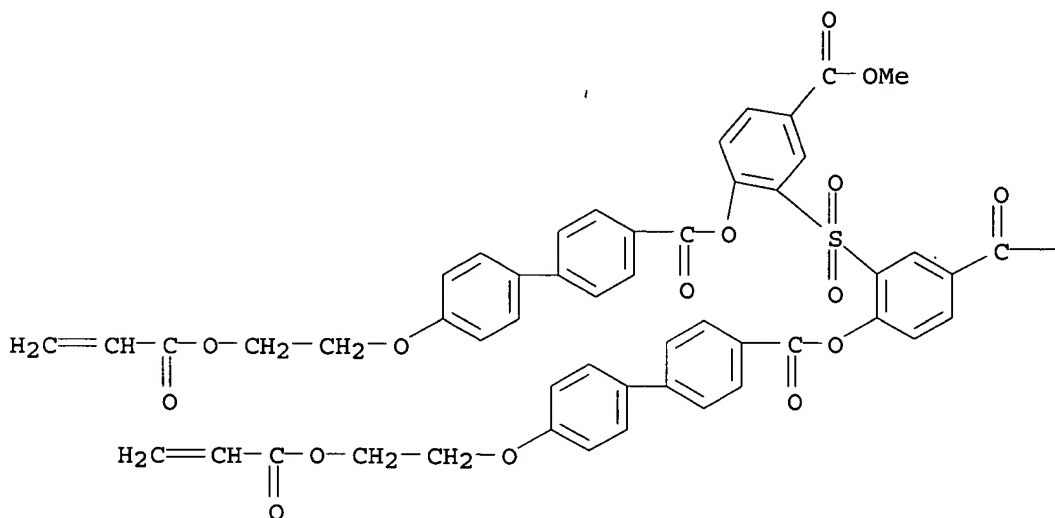


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RN 208107-95-3 CAPLUS
 CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[2-[(1-oxo-2-propenyl)oxy]ethoxy]-, sulfonylbis[4-(methoxycarbonyl)-2,1-phenylene] ester (9CI) (CA INDEX NAME)

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IT 208107-94-2P 208107-96-4P 208107-97-5P
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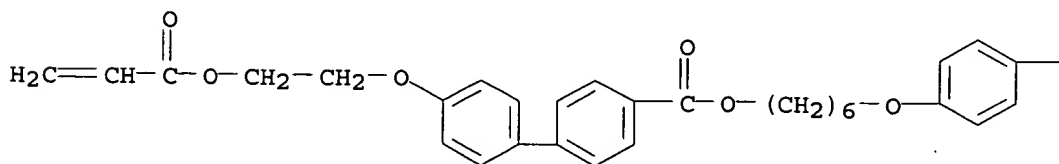
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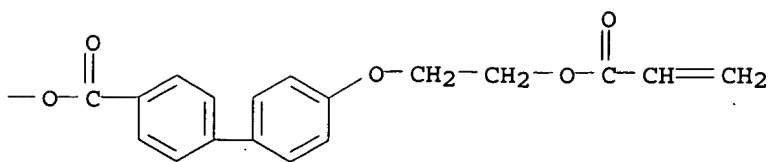
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CM 1

CRN 208107-92-0
 CMF C48 H46 O11

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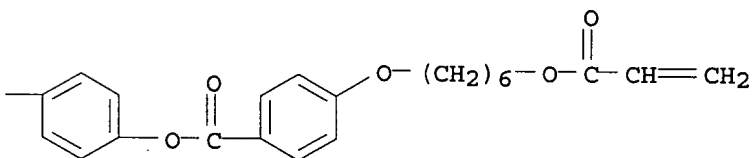
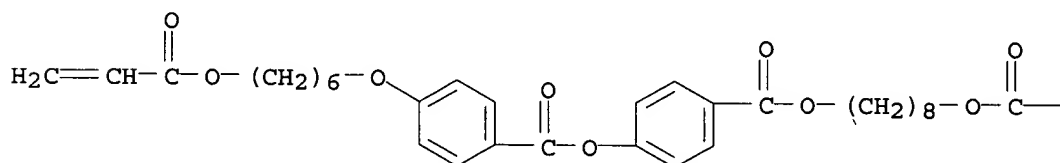


RN 208107-96-4 CAPLUS
 CN Benzoic acid, 4-[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-,
 1,8-octanediylbis(oxy carbonyl-4,1-phenylene) ester, homopolymer (9CI) (CA
 INDEX NAME)

CM 1

CRN 208107-86-2

CMF C54 H62 O14

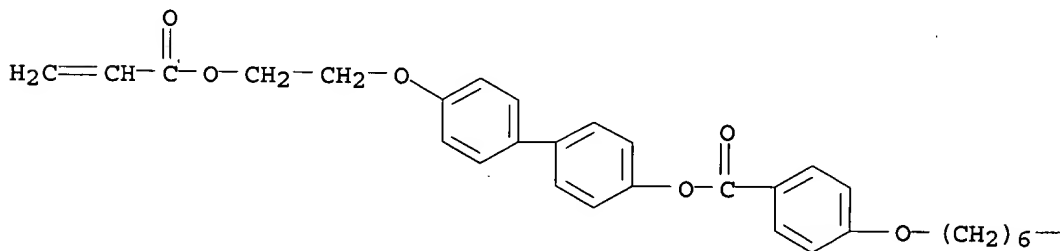


RN 208107-97-5 CAPLUS
 CN 1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[[4'-[2-[(1-oxo-2-
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 ester, homopolymer (9CI) (CA INDEX NAME)

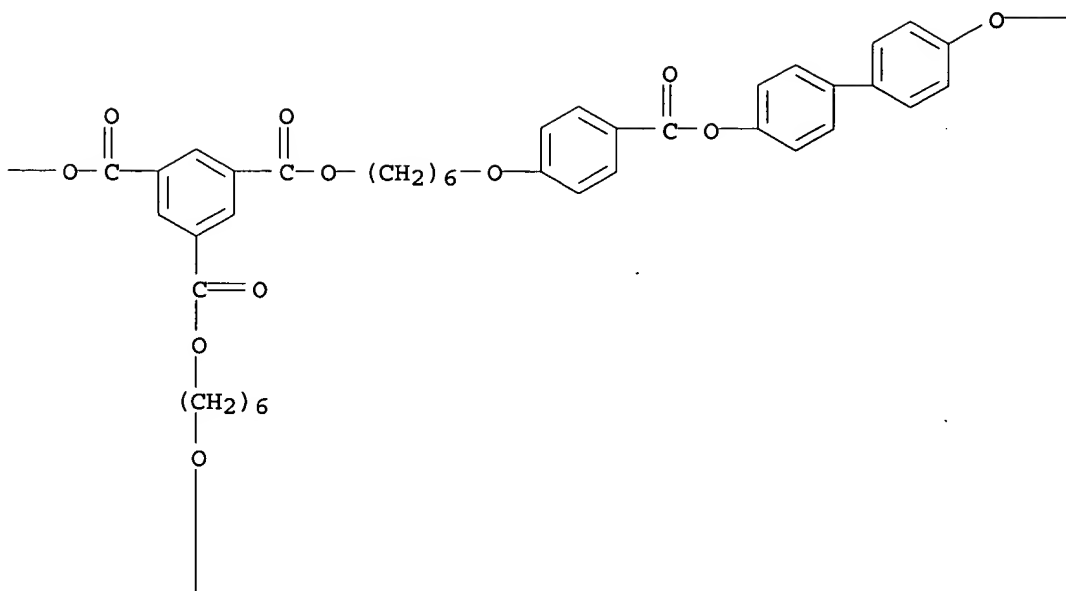
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CRN 208107-89-5

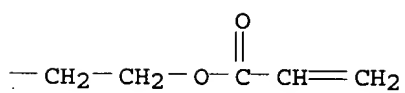
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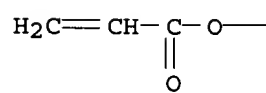
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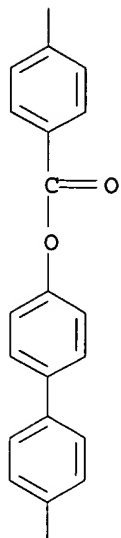


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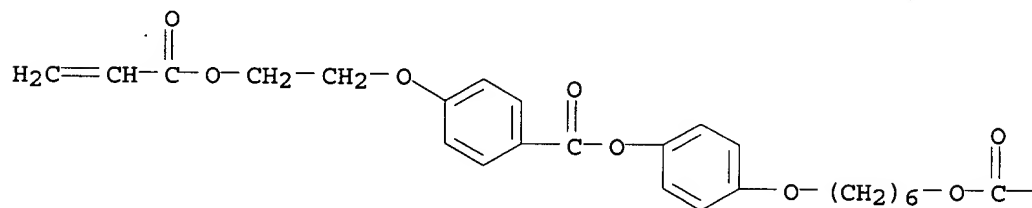


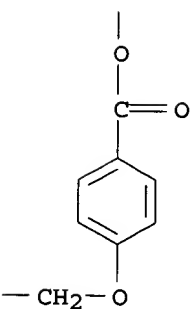
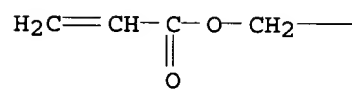
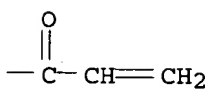
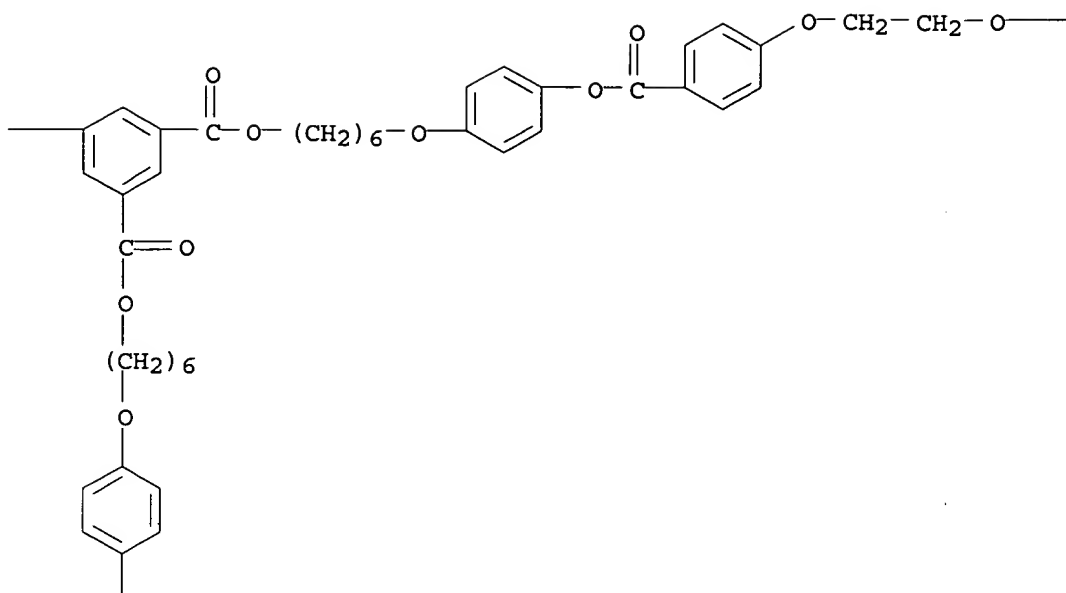
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RN 208107-98-6 CAPLUS
 CN 1,3,5-Benzenetricarboxylic acid, tris[6-[4-[[4-[2-[(1-oxo-2-propenyl)oxy]ethoxy]benzoyl]oxy]phenoxy]hexyl] ester, homopolymer (9CI)
 (CA INDEX NAME)

CM 1

CRN 208107-91-9
 CMF C81 H84 O24





ACCESSION NUMBER: 1998:105969 CAPLUS
 DOCUMENT NUMBER: 128:186553
 TITLE: Combination of optical elements for display device
 INVENTOR(S): Verrall, Mark; Ward, Jeremy; Hanmer, James; Coates, David
 PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany; Verrall, Mark; Ward, Jeremy; Hanmer, James; Coates, David
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9804651	A1	19980205	WO 1997-EP3676	19970711 <--
W: DE, GB, JP, KR, US				
GB 2331813	A1	19990602	GB 1999-1706	19970711
GB 2331813	B2	20000607		
DE 19781781	T	19990617	DE 1997-19781781	19970711
JP 2001500276	T2	20010109	JP 1998-508422	19970711
KR 2000029549	A	20000525	KR 1999-700607	19990125
US 6544605	B1	20030408	US 1999-230335	19990125
US 2003190437	A1	20031009	US 2003-367722	20030219
US 2005142301	A1	20050630	US 2004-972147	20041025
PRIORITY APPLN. INFO.:			EP 1996-112100	A 19960726
			WO 1997-EP3676	W 19970711
			US 1999-230335	A3 19990125
			US 2003-367722	B1 20030219

AB The invention relates to a combination of optical elements comprising at least one optical retardation film and at least one broadband reflective polarizer, characterized in that the optical retardation film comprises at least one layer of an anisotropic polymer material having an optical symmetry axis substantially parallel to the plane of the layer, said optical retardation film being obtainable by polymerization of a mixture of a **polymerizable mesogenic** material comprising (a) at least one reactive mesogen having at least one **polymerizable** functional group, (b) an initiator, (c) optionally a nonmesogenic compound having two or more **polymerizable** functional groups, and (d) optionally a stabilizer and relates to an optical retardation film used in said combination of optical elements and to a liquid crystal display comprising said combination of optical elements.

IT 174063-87-7

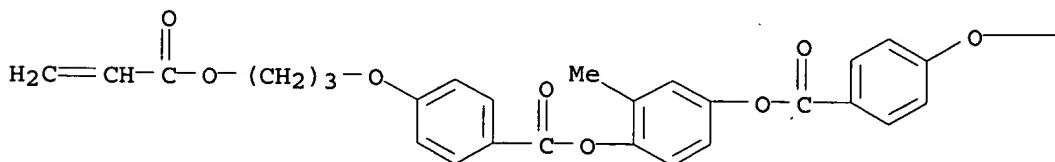
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

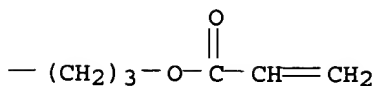
(liquid-crystal display devices with retardation films prepared from photopolymerizable compns. containing)

RN 174063-87-7 CAPLUS

CN Benzoic acid, 4-[3-[(1-oxo-2-propenyl)oxy]propoxy]-, 2-methyl-1,4-phenylene ester (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:55642 CAPLUS

DOCUMENT NUMBER: 128:134449

TITLE: Preparation of 3,6-dihydroxyfuro[3,2-b]furan diesters as chiral dopants

INVENTOR(S): Parri, Owain; Nolan, Patrick; Farrand, Louise; May, Alison

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany; Parri, Owain; Nolan, Patrick; Farrand, Louise; May, Alison

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

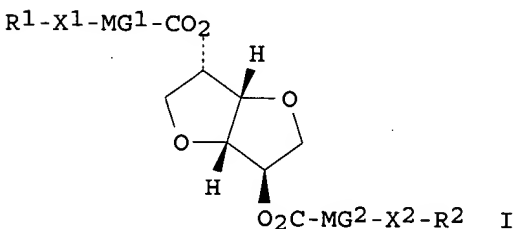
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9800428	A1	19980108	WO 1997-EP3167	19970618 <--
W: CN, DE, GB, JP, KR, US				
GB 2329636	A1	19990331	GB 1998-28214	19970618
GB 2329636	B2	20000719		
CN 1223657	A	19990721	CN 1997-195878	19970618
CN 1103776	B	20030326		
DE 19781752	T	19990902	DE 1997-19781752	19970618
JP 2000515496	T2	20001121	JP 1998-503799	19970618
GB 2314839	A1	19980114	GB 1997-13931	19970701 <--
GB 2314839	B2	19990929		
US 6217792	B1	20010417	US 1998-214387	19981230
KR 2000022497	A	20000425	KR 1998-710938	19981231
CN 1420382	A	20030528	CN 2002-132214	20020830
PRIORITY APPLN. INFO.:			EP 1996-110578	A 19960701
			WO 1997-EP3167	W 19970618

OTHER SOURCE(S): MARPAT 128:134449

GI



AB The invention relates to chiral dopants of the formula [I; R¹, R² = straight-chain or branched C_{≤25} alkyl which may be unsubstituted or mono- poly-substituted by halo or cyano, it being also possible for one or more non-adjacent CH₂ groups to be replaced, in each case independently fro one another, by O, S, NH, NMe, CO, CO₂, O₂C, O₂C-O, S-CO, CO-S, or C.tplbond.C, X¹, X² = O, S, CO, CO₂, O₂C, O₂C-O, S-CO, CO-S or a single bond; MG¹, MG² = a mesogenic or mesogeneity supporting group of formula (A¹-Z)_m-A²; wherein Z = CO₂, O₂C, CH₂CH₂, OCH₂, CH₂O, CH:CH, CH:CHCO₂, O₂CCH:CH, C.tplbond.C, a single bond; A¹, A² = (un)substituted

1,4-phenylene (wherein one or more CH groups may be replaced by N), 1,4-cyclohexylene (wherein one or two nonadjacent CH₂ groups may be replaced by O and/or S), 1,4-cyclohexenylene, 1,4-bicyclo[2,2,2]octylene, piperidin-1,4-diyl, naphthalene-2,6-diyl, decahydronaphthalene-2,6-diyl, or 1,2,3,4-tetrahydronaphthalene-2,6-diyl]. The invention also relates to liquid crystalline materials comprising at least one chiral dopant of formula I and optionally at least one **polymerizable mesogenic** compound. The invention furthermore relates to the use of such liquid crystalline materials for the preparation of polymer films with a chiral liquid crystalline phase, for active and passive optical elements or color filters and for liquid crystal displays, for example STN, TN, AMD-TN, temperature compensation, guest-host or phase change displays, or polymer free or polymer stabilized cholesteric texture (PFCT, PSCT) displays. The invention also relates to cholesteric liquid crystal displays comprising liquid crystalline materials comprising chiral dopants of formula I and to polymer films with a chiral liquid crystalline phase obtainable by (co)polymerizing a liquid crystalline material comprising at least one chiral of formula I and at least one **polymerizable** compound. Thus, I (R₁-X₁-MG₁ = MG₂-X₂-R₂ = Q), which was prepared from I (R₁-X₁-MG₁ = MG₂-X₂-R₂ = H), showed a very high helical twisting power of 75 μm^{-1} , determined in the com. available nematic liquid crystal mixture E 063 (Merck Ltd., Poole, UK) as a host mixture, which had the following properties clearing point 78.5°, birefringence -.224, dielec. anisotropy +14.6, and viscosity (at 20°) 38 mm²/s.

IT

201794-12-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(bright green cholesteric polymer film; preparation of dihydroxyfuro[3,2-b]furan diesters as chiral dopants)

RN

201794-12-9 CAPLUS

CN

D-Glucitol, 1,4:3,6-dianhydro-, bis[4-[(4-methoxybenzoyl)oxy]benzoate], mixt. with 2-methyl-1,4-phenylene bis[4-[3-[(1-oxo-2-propenyl)oxy]propoxy]benzoate] homopolymer (9CI) (CA INDEX NAME)

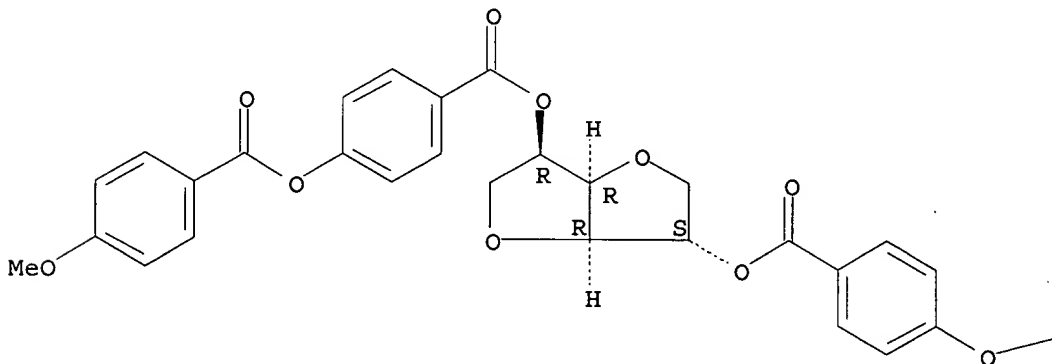
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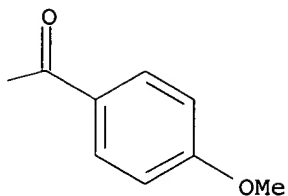
CRN 197663-64-2

CMF C36 H30 O12

Absolute stereochemistry.

PAGE 1-A





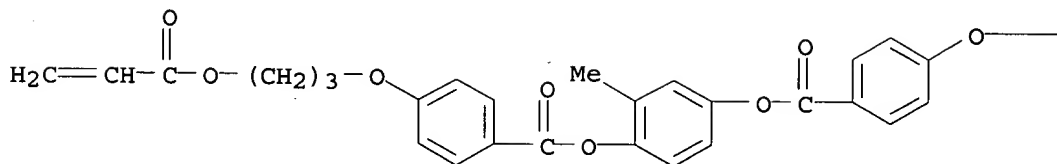
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CRN 199930-19-3
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 CCI PMS

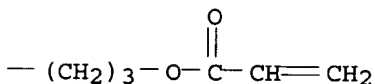
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CRN 174063-87-7
 CMF C33 H32 O10

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:640848 CAPLUS

DOCUMENT NUMBER: 127:324503

TITLE: Liquid-crystal display device

INVENTOR(S): Coates, David; Greenfield, Simon; Goulding, Mark; Hanmer, James; Marden, Shirley; Parri, Owain Llyr

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9735219	A1	19970925	WO 1997-EP844	19970221 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9717938	A1	19971010	AU 1997-17938	19970221 <--
EP 888565	A1	19990107	EP 1997-903353	19970221
R: DE, FR, GB, NL				
JP 2000507362	T2	20000613	JP 1997-533071	19970221
TW 455727	B	20010921	TW 1997-86103976	19970326
US 6217955	B1	20010417	US 1998-117710	19980804
US 6669865	B1	20031230	US 2000-696282	20001026
PRIORITY APPLN. INFO.:			EP 1996-104332	A 19960319
			WO 1997-EP844	W 19970221
			US 1998-117710	A3 19980804

AB The invention relates to a liquid-crystal display device comprising a liquid crystal cell and at least one reflective polarizer or a polarizer combination comprising at least one reflective polarizer as a means to generate circular polarized light, said reflective polarizer comprising an optically active layer of an anisotropic polymer material with a helically twisted planar mol. orientation, wherein the material is oriented so that the axis of the mol. helix extends transversely to the layer, in which the pitch of the mol. helix is varied in such a manner that the difference between the maximum pitch and the min. pitch is at least 100 nm, characterized in that said reflective polarizer is obtainable by copolymerization of a mixture of a chiral **polymerizable mesogenic** material comprising at least one achiral **polymerizable mesogenic** compound having at least one **polymerizable functional group**, at least one chiral **polymerizable mesogenic** compound having one **polymerizable functional group** and/or at least one nonpolymerizable chiral **mesogenic** compound, an initiator, optionally a nonmesogenic compound having at least one **polymerizable functional group**, optionally a dye and, optionally a stabilizer. The invention also relates to methods of manufacturing such a reflective polarizer. The invention further relates to a mixture of a chiral **polymerizable mesogenic** material used for manufacturing such a reflective polarizer.

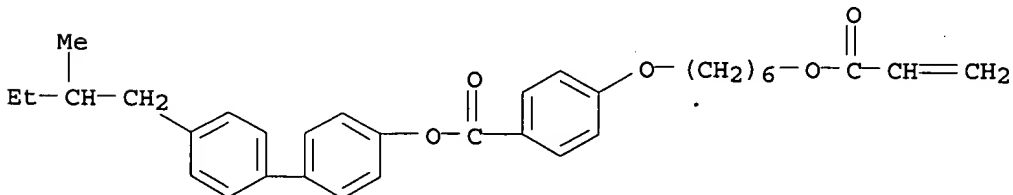
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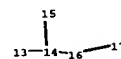
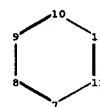
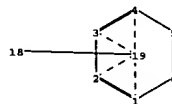
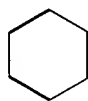
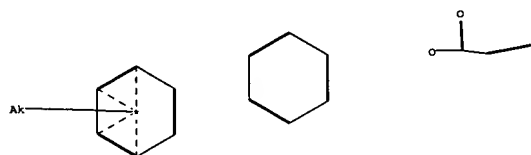
RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(liquid-crystal display device polarizing film preparation using photopolymerizable compns. containing)

RN 197663-61-9 CAPLUS
CN Benzoic acid, 4-[[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]-, 2-methyl-1,4-phenylene ester, polymer with 4'-(2-methylbutyl)[1,1'-biphenyl]-4-yl 4-[[[6-[(1-oxo-2-propenyl)oxy]hexyl]oxy]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 168904-02-7
CMF C33 H38 O5





chain nodes :

13 14 15 16 17 18

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds :

13-14 14-15 14-16 16-17

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds :

13-14 14-15

exact bonds :

14-16 16-17

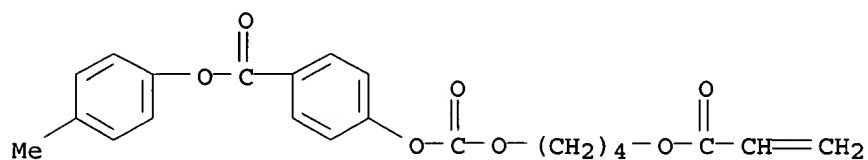
normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

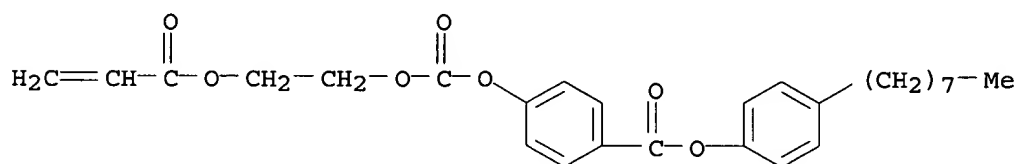
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS

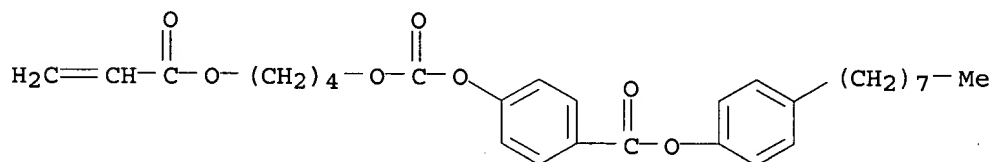
RN 187585-84-8 CAPLUS
 CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-methylphenyl ester (9CI) (CA INDEX NAME)



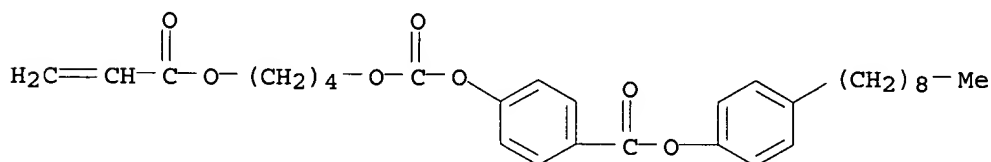
RN 187585-85-9 CAPLUS
 CN Benzoic acid, 4-[[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]oxy]-, 4-octylphenyl ester (9CI) (CA INDEX NAME)



RN 187585-86-0 CAPLUS
 CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-octylphenyl ester (9CI) (CA INDEX NAME)



RN 187585-87-1 CAPLUS
 CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-nonylphenyl ester (9CI) (CA INDEX NAME)



RN 187585-88-2 CAPLUS
 CN Benzoic acid, 4-[[[4-[(1-oxo-2-propenyl)oxy]butoxy]carbonyl]oxy]-, 4-acetylphenyl ester (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1989:213473 CAPLUS

DOCUMENT NUMBER: 110:213473

TITLE: Synthesis and characterization of liquid-crystalline polyacrylates and polymethacrylates containing benzyl ether- and diphenylethane-based mesogens

AUTHOR(S): Hsu, Chain S.; Percec, Virgil

CORPORATE SOURCE: Dep. Macromol. Sci., Case West. Reserve Univ., Cleveland, OH, 44106, USA

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1989), 27(2), 453-66

CODEN: JPACEC; ISSN: 0887-624X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis and radical polymerization of a series of acrylates and methacrylates containing p-cyanophenyl-p-hydroxybenzyl ether, p-methoxyphenyl-p-hydroxybenzyl ether, and 1-(p-cyanophenyl)-2-(p-hydroxyphenyl) ethane groups attached to the **polymerizable** group through aliphatic spacers containing 11 and 6 methylenic units is described. The polymers were characterized by DSC and optical polarization microscopy. All polymers exhibited enantiotropic mesomorphism. Low-mol.-weight compds. based on benzyl ether or di-Ph ethane units exhibit only monotropic or virtual transitions. This demonstrates that the "polymer effect" stabilizes mesophases obtained from "mesogenic units" which do not contain rigid interconnecting groups.

IT 120603-05-6P 120603-06-7P 120603-07-8P

120603-08-9P 120603-09-0P 120603-10-3P

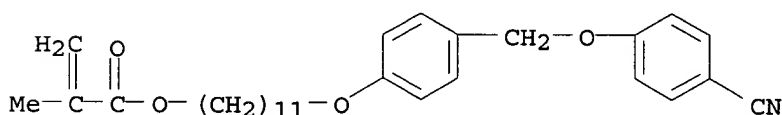
120603-11-4P 120618-89-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

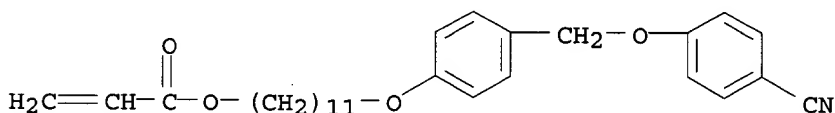
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CN 2-Propenoic acid, 2-methyl-, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)



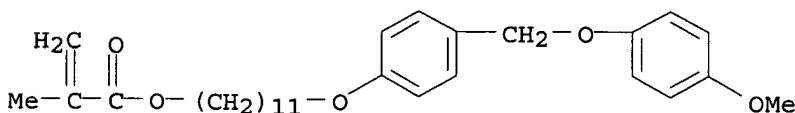
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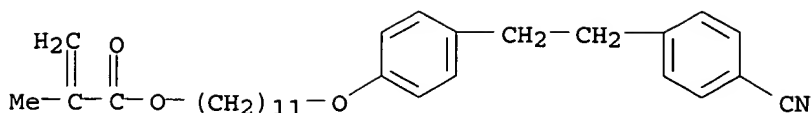
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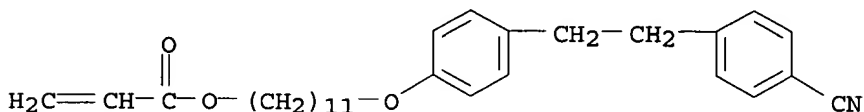


RN 120603-08-9 CAPLUS

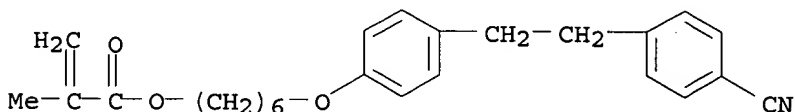
CN 2-Propenoic acid, 2-methyl-, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester (9CI) (CA INDEX NAME)



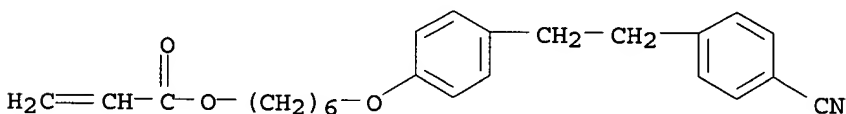
RN 120603-09-0 CAPLUS
 CN 2-Propenoic acid, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester
 (9CI) (CA INDEX NAME)



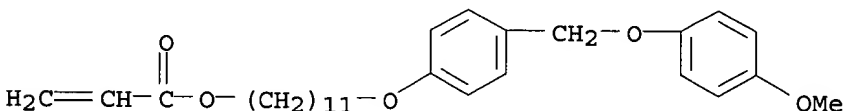
RN 120603-10-3 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl
 ester (9CI) (CA INDEX NAME)



RN 120603-11-4 CAPLUS
 CN 2-Propenoic acid, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester (9CI)
 (CA INDEX NAME)



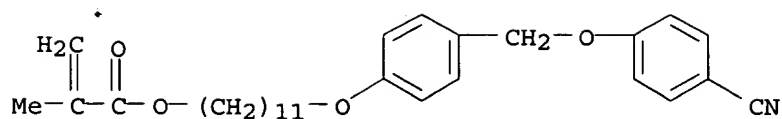
RN 120618-89-5 CAPLUS
 CN 2-Propenoic acid, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undecyl ester
 (9CI) (CA INDEX NAME)



IT 120619-40-1P 120619-41-2P 120619-42-3P
 120619-43-4P 120619-44-5P 120619-45-6P
 120619-46-7P 120619-47-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of liquid-crystalline)
 RN 120619-40-1 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl
 ester, homopolymer (9CI) (CA INDEX NAME)

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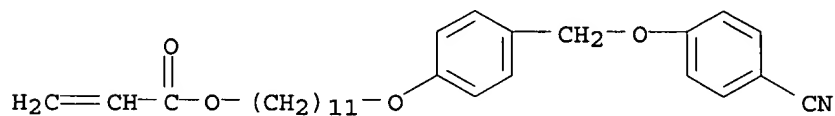
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 CMF C29 H37 N O4



RN 120619-41-2 CAPLUS
 CN 2-Propenoic acid, 11-[4-[(4-cyanophenoxy)methyl]phenoxy]undecyl ester,
 homopolymer (9CI) (CA INDEX NAME)

CM 1

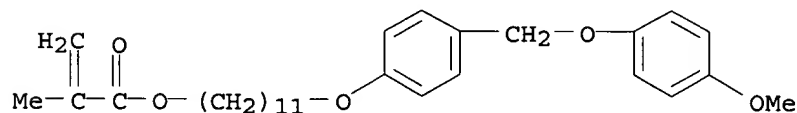
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 CMF C28 H35 N O4



RN 120619-42-3 CAPLUS
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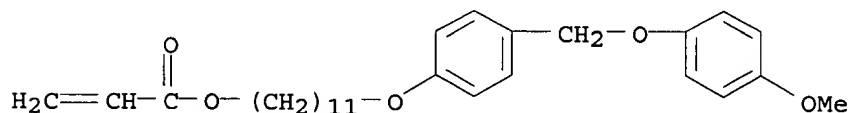
CRN 120603-07-8
 CMF C29 H40 O5



RN 120619-43-4 CAPLUS
 CN 2-Propenoic acid, 11-[4-[(4-methoxyphenoxy)methyl]phenoxy]undecyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

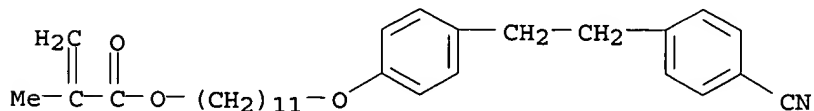
CRN 120618-89-5
 CMF C28 H38 O5



RN 120619-44-5 CAPLUS
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CM 1

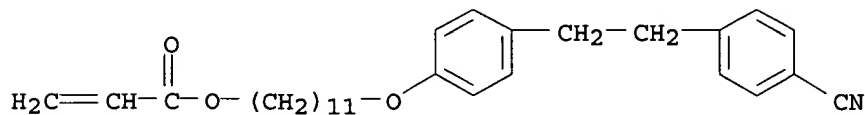
CRN 120603-08-9
 CMF C30 H39 N O3



RN 120619-45-6 CAPLUS
CN 2-Propenoic acid, 11-[4-[2-(4-cyanophenyl)ethyl]phenoxy]undecyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

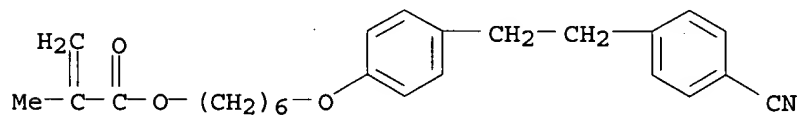
CRN 120603-09-0
CMF C29 H37 N O3



RN 120619-46-7 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl
ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

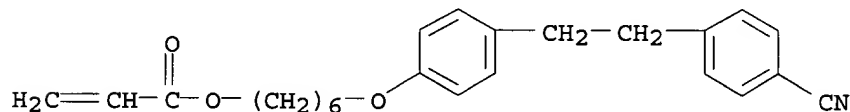
CRN 120603-10-3
CMF C25 H29 N O3



RN 120619-47-8 CAPLUS
CN 2-Propenoic acid, 6-[4-[2-(4-cyanophenyl)ethyl]phenoxy]hexyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 120603-11-4
CMF C24 H27 N O3



=>

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FILE 'CAPLUS' ENTERED AT 13:23:12 ON 31 JAN 2006
STRUCTURE UPLOADED
S L1

FILE 'REGISTRY' ENTERED AT 13:23:48 ON 31 JAN 2006
50 S L1

FILE 'CAPLUS' ENTERED AT 13:23:49 ON 31 JAN 2006
36 S L2
4 S L3 AND PY<1999
S L1

FILE 'REGISTRY' ENTERED AT 13:27:29 ON 31 JAN 2006
91811 S L1 FULL

FILE 'CAPLUS' ENTERED AT 13:27:34 ON 31 JAN 2006
38730 S L5 FULL
24307 S L6 AND PY<1999
2926 S L7 AND POLYMERIZ?
1227 S L7 AND POLYMERIZABLE
28 S L9 AND MESOGENIC